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THE UNIVERSITY OF KANSAS,  
LAWRENCE.

EXPERIMENTAL STATION.

SECOND ANNUAL REPORT OF THE DIRECTOR,

FOR THE YEAR 1892.

F. H. SNOW,  
*Director.*

CONTAGIOUS DISEASES OF THE CHINCH-BUG.

TOPEKA.  
PRESS OF THE HAMILTON PRINTING COMPANY:  
EDWIN H. SNOW, State Printer.  
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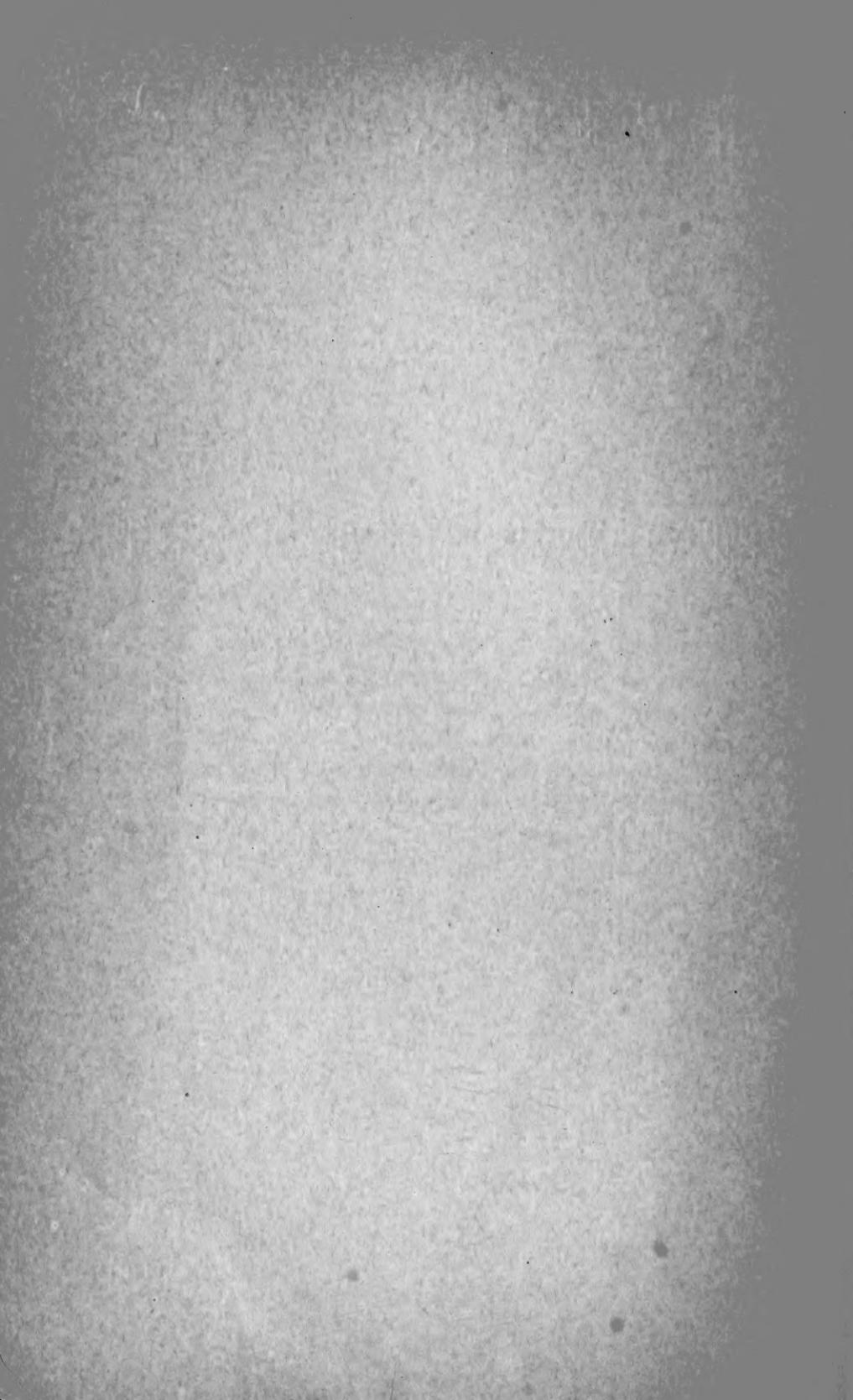


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1893.



## LETTER OF TRANSMITTAL.

LAWRENCE, KAS., December 13, 1892.

*To His Excellency Lyman U. Humphrey, Governor of Kansas.*

In accordance with the requirements of section 5 of the law establishing an Experiment Station at the State University of Kansas, to promote and conduct experiments for the destruction of chinch-bugs by contagion or infection, I make the following report of the results of my experiments for the year 1892, and of the money expended in the experiments.

Yours respectfully,

F. H. SNOW,  
*Director of the Experiment Station.*

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## ERRATA.

On page 3, in last paragraph on the page, read \$43,336.15 for \$39,481.15; also read \$118,118.16 for \$107,615.52.

On page 4, in the second line, read \$311,428.16 for \$300,925.52.

## INTRODUCTORY NOTE.

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It has been thought unnecessary to recapitulate in this report the results of observations of previous years on the subject of the contagious diseases of the chinch-bug. The publication of the list of field experimenters who have made reports is deemed advisable, even in face of its great length, under the belief that an opportunity is thus given farmers to be informed of those in their neighborhoods who have made field trials and who are therefore in position to speak at first hand of the probable value of the experiments. In addition to the list of reporting experimenters, a general summary of the season's work in field and laboratory is given, and the needs of the Station are set forth. The report is intended primarily for those especially interested within the State, *i. e.*, the wheat and corn growers, and the laboratory notes and references to the technical work of the Station are brief and generalized.

The Director recognizes the need of many carefully-conducted series of laboratory experiments to clear up points in the work now imperfectly understood. But the evident very considerable work involved in the field experimenting, carried on with but a single center of infection and distribution, has so taken up the available time of the Director and his assistants, that less time than is desirable has been devoted to laboratory investigation. It is hoped that this condition may be remedied during another year, and that the full time of a laboratory assistant may be had.

It is also desirable that several centers of infection and distribution be established, so that this great labor may be divided, and especially so that the time elapsing between a request for infection and the coming into the hands of the farmer of the infected bugs may be as short as possible.

The act establishing the Experiment Station is as follows:

*House bill No. 639.*

AN ACT to establish an Experimental Station at the State University of Kansas, to promote and conduct experiments for the destruction of chinch-bugs by contagion or infection, and making an appropriation therefor.

*Be it enacted by the Legislature of the State of Kansas:*

SECTION 1. That the sum of thirty-five hundred dollars be and the same is hereby appropriated for the purpose of establishing, maintaining and conducting an experimental station at the State University, at Lawrence, to propagate the contagion or infection that is supposed to be destructive to chinch-bugs, and furnish the same to the farmers free of charge, under the direction and supervision of the Chancellor, F. H. Snow, as hereinafter provided.

SEC. 2. As soon as practicable after the taking effect of this act, the said Chancellor shall procure the necessary furniture and material, with such assistance as he may require, and proceed to propagate as much contagion, on as large a scale, as may be necessary, and supply the farmers of this State with the same, when required.

SEC. 3. Of the sum hereby appropriated, two thousand five hundred dollars shall be available during the fiscal years ending June 30, 1891, and June 30, 1892, to be applied to defraying the necessary expenses for assistants, furniture, expressage, telegraphing, postage, etc. And said Chancellor is hereby authorized to issue his warrant upon the State Treasurer, upon itemized accounts, for the amounts specified by this act: *Provided*, That not more than five hundred dollars shall be drawn in any one month, except in the month of April, 1891, when the sum of eight hundred dollars may be drawn, if deemed necessary; and all accounts shall be verified. And if the experiments fail to produce the desired results, no more funds shall be drawn from the treasury, and the station shall be abandoned.

SEC. 4. If the experiments shall prove successful, or desirable to be continued, the sum of one thousand dollars shall be made available during the fiscal year ending June 30, 1893, to be drawn under the same conditions as set forth in section 3 of this act.

SEC. 5. The Chancellor shall also report the results of his experiments to the official State paper, provided the said paper shall publish the same free of charge, beginning the first day of April next and every month thereafter, until the first day of December following. He shall also make a full report of the money expended and the results of his experiments to the Governor, on or before the first day of December of each year.

SEC. 6. This act shall take effect and be in force from and after its publication in the official State paper.

Approved March 4, 1891.

## OBSERVATIONS AND EXPERIMENTS OF 1892.

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### I.—GENERAL NOTES AND RESULTS.

The first chinch-bugs for infection were received April 20. These bugs came from Texas. With these bugs the infection cases were started with the "white fungus," *Sporotrichum globuliferum*. This now makes the fourth winter through which this infection has been carried in the laboratory. Near the close of the summer of 1891, a considerable number of dead bugs, whose bodies were filled with this fungus growth, were put away in secure boxes to be used for the beginning of the following season's experiments. With the first bugs sent in a healthy growth was soon obtained in the infection jars, and as soon as the chinch-bugs began to be sent in considerable numbers from various portions of the State the large infection boxes adopted last year were again put into use.

The method of infecting and distributing during this season has been the same as that adopted in 1891. Large, shallow boxes, in which infected bugs were put from the small infection jars used in beginning the work, were kept stocked with live bugs throughout the season. From these boxes a small number of dead bugs covered with the fungus, dying bugs on the outsides of whose bodies the fungus had not yet appeared, and active, apparently healthy but presumably infected bugs, were sent in response to each request for infection.

During the season 3,500 requests for infected bugs were received, of which number more than 3,000 were from Kansas farmers. In every case where the application was accompanied by live bugs (a condition obviously necessary in order that the infection boxes might be kept stocked) infected bugs were returned. Resulting from these 3,000 applications, reports were received regarding 1,732 field experiments. Of these 1,732 experimenters, 196 report a failure to give the infected bugs a trial for various reasons; the results for 120 cases were doubtful in the minds of the experimenters; in 372 cases no successful results were obtained; and in 1,044 cases infected bugs were believed to have been used with successful results. Thus 67.9 per cent. of the experiments regarding the outcome of which reports were received were successful, 24.3 per cent. were unsuccessful, and 7.8 per cent. were doubtful. In making these percentages the "no trial" reports were of course excluded.

Of these 1,044 successful reports, 383 include specific estimates of crops saved by the experiments. The sum in cash value of these estimates is \$39,481.15. If the average amount may be fairly applied to the remainder of the 1,044 Kansas experimenters, an aggregate saving of \$107,615.52 may be esti-

mated. In the two years 1891 and 1892, during which the Station has existed, an aggregate saving of crops amounting in cash value to \$300,925.52 is estimated.

Infected bugs were sent to eight States other than Kansas, and also to Indian and Oklahoma Territories. Reports were received from 216 experimenters in these States and Territories, of which 153 report successful results, 16 unsuccessful, 7 doubtful, and 40 were unable to give the infected bugs a trial.

The per cent. of successful reports from our field experiments is not so great this year as last, nor is the estimated average saving by each successful experiment. Undoubtedly one reason for this is, that the bugs were not prevalent in such large numbers this year. The *Sporotrichum* infection is propagated by minute spores, which are carried from one bug to another by the wind or by contact of one bug with another. It is evident, therefore, that the more isolated the bugs are from one another, the less the opportunity for the spores to find their victims. It seems, moreover, that the meteorological conditions have not on the whole been so favorable for the growth of the fungus as last year. This was evidently the case here at Lawrence. There is no question that the successful propagation of the fungus is in a large measure dependent on atmospheric conditions. While, with our best efforts to maintain the proper conditions at the Experimental Station, the fungus became only desultory in its growth, in the fields in Reno county, for instance, the fungus was spreading rapidly. Observations of this character have brought us to the opinion that the efficiency of the enterprise would be greatly promoted if several centers for propagating and distributing the fungus were maintained during the time of the chinch-bug ravages, say from May till September. This, we believe, would insure greater certainty in having a supply of the fungus always on hand the day the orders are received, and two or three days would often be saved in time of transit. When the chinch-bugs are present in large numbers in a field, the saving of a few days' time in the application of the infection might result, in the aggregate, in the rescue of large values. It is probable that the maintenance of four such stations for the time suggested could be accomplished by the expenditure of \$1,200 per annum.

## II.—LABORATORY NOTES.

The white fungus infection, *Sporotrichum globuliferum*, as in previous years, survived the winter in our laboratory in the bodies of dead bugs which had been laid by from time to time during the previous summer. The first chinch-bugs for infection came to our laboratory April 20, from Texas, and with these we started our infection cases. Only a small number of bugs was sent us at this early date and the disease worked slowly, as we had found to be the case under like circumstances in previous years. However,

when bugs for infection later in the spring came in in large numbers, from Kansas, the disease spread rapidly enough to fill the orders. Our experience in the laboratory as well as in the field confirmed our beliefs of previous years, that the bugs must be massed in considerable numbers before the fungus can spread rapidly.

Our infection boxes were kept in a basement laboratory, and as the heat of summer increased the sides and floor were kept sprinkled, and the temperature was thus maintained below 85° F., and the atmosphere was comparatively humid. Nevertheless towards the middle of July, although bugs were received in sufficient quantity to keep our boxes well stocked, the spread of the disease began to decrease, and we had to call for contributions from infested fields to fill our orders. It is more than probable that if boxes were kept in a shaded place out of doors, for instance, in a shallow excavation in a shaded bank, where the temperature might fall at night nearly to that in the open, better results would be realized during the summer months.

In three instances dead bugs with no external fungus growth were sent in from infected fields with the statement that the bugs had died rapidly as if from disease. The bugs ranged in age from those just hatched to adults. On close inspection, light-colored patches could be made out beneath the skin of the abdomen of the red larval bugs. The crushed bodies of the bugs were seen to contain mycelial growths similar to those known to have died of *Sporotrichum*. Placed in a moist chamber, the characteristic second growth of *Sporotrichum* was produced on many of the bugs. It thus seems that the ravages of *Sporotrichum* are not always marked by an external growth of fungus. However, whether the fungus can be communicated through a field, or to any extent without the formation of spores outside the body, is a subject for consideration. It is known that in culture media and within the bug the fungus breaks up into hyphal bodies, illustrated by figures 4, 5, and 6, plate II, of our First Annual Report. Whether these bodies can in any way gain exit from the bug and act as the ordinary aerial spores in distributing the disease, we have no direct evidence to show. None of the bugs sent us from the fields above mentioned showed an external growth of *Sporotrichum*; yet this disease was undoubtedly present throughout these fields.

*Empusa aphidis* was present in our infection boxes and in some fields during the summer of 1891; but although we reserved an abundance of material to start this infection this spring, it did not start into new growth, and no case of parasitism by this fungus came under our observation this season. We have attempted during the past season to accumulate further evidence of a bacterial disease of the chinch-bug. The results of our experiments have been contradictory, and the question is not yet sufficiently settled to make a detailed report of value. Professor Forbes has discovered that bacteria normally exist in the digestive tract of *Hemiptera* and that *Micrococcus insectorum* occurs in chinch-bugs showing no signs of disease. Our observations made on chinch-bugs of different ages sent in from various parts of the State

agree with Professor Forbes's statement. There are certain phenomena, however, in our laboratory and field experiments that warrant us in pursuing the inquiry still further.

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### III.—REPORT OF FIELD AGENT.

*To the Director of the Experiment Station:*

Having served you another year in the capacity of your special agent, I present my report.

During the present season I have visited 15 counties, three less than the number visited by me during the season of '91. They are: Osage, Lyon, Shawnee, Chase, Marion, McPherson, Harvey, Reno, Sumner, Elk, Coffey, Labette, Franklin, Allen, and Wabaunsee. In these counties I found that the ravages of the chinch-bugs were inconsiderable, with the exception of Lyon county, in the central and northern parts of which corn fields had been in a few instances almost completely destroyed, and in many cases partially damaged. Elk county, where last year bugs had been the cause of much injury to growing crops, I found relatively free from the pests. It is interesting to note that, where successful experiments were conducted last year, the farms are almost universally free from the presence of the injurious insects this season.

Of the crops damaged this year, the wheat fields have suffered least.

*Sporotrichum*, the white fungus, made its appearance early in the spring. As late as the first week in August, I had an opportunity to observe the results of white fungus in the corn field of Mel. H. Calbeck, near Peabody, Marion county. In Mr. Calbeck's field, the results were entirely satisfactory. The appearance of this disease in the field was subject to the same general conditions heretofore observed. The field lay alongside a field of wheat stubble, from which the bugs had gone in upon the corn from 20 to 30 rows deep. The lower blades of the stalks in these rows were seared and dead, and while the bugs were not present in sufficient numbers to inflict any great injury, their destructive operations were suddenly and entirely checked.

Before dying, the bugs had secreted themselves in crevices in the earth, beneath bunches of grass, and under clods. The dead ones were enshrouded in the characteristic white fungus. The behavior of this disease wherever I have observed it has been in no wise different from that of last year. Also, as far as I have been able to learn, wherever it has manifested itself, it gave the utmost satisfaction to the experimenter.

The gray fungus, *Empusa aphidis*, I have been unable to find in any fields, although throughout the entire season's observations I have kept a most vigilant watch for its presence.

As to bunching bugs: I have observed that the bugs moulted at irregular intervals during the season. The first bunches to which my attention was

called were in the corn field of T. N. McFadden, of Waverly, Coffey county. Two days after the infection was put into the field the bugs began to collect in small heaps about the foot of the stalks, under clods or in depressions, but only in that part of the field in which the infection had been distributed. The day was extremely warm, and the soil was dry. I visited the field twice during the day, once at 9 A. M. and again at 1:30 P. M. At both times the actions of the apparently sick bugs were in no wise different. The bunches contained three sizes—the very small red bugs (larvæ), the larger brown, wingless ones (pupæ), and the black winged ones (adults). The second class predominated. These bugs had neither "burst" nor moulted, to any noticeable extent; only an occasional moult did I see near the edges of the heaps, which did not generally exceed four or five teaspoonfuls to a place. As to farther results I have received no word.

The tenth day after the infection has been scattered is almost invariably given by the farmers for the bugs to wholly disappear after bunching. This interval is given without regard to the time of season.

During the last week of July and the first week of August I saw thousands of freshly moulted bugs in all fields, but these had pretty generally left their skins in the axils of the corn blades. At this time I did not find a single bunch of moulted bugs in either infected or uninfected field. But two reports of bunching bugs in uninfected fields have reached me, and a close investigation failed to disclose any traces of these bunches, and the remaining live bugs were not found in large numbers. These heaps were said to have been in the low places—the furrows of the cultivator.

Wherever I have observed bunching, the skins have mostly been those of the wingless, large brown bugs (pupæ), while the little red ones (larvæ) were found dead in no small numbers, intact, among the open skins. Wherever such bunching has occurred, a disappearance, if not by death then by migration, has uniformly resulted. The phenomenon of bunching has only been seen and reported during the warm, dry weather.

In numerous instances, the fact that chinch-bugs, regardless of the time of the season, have scattered shortly after the infection has been placed in the fields, has brought forth the question, "Did your infection cause them to scatter?" The general consensus of opinion among the farmer-experimenters who have perceived such results is an affirmative one. I have again and again observed the above results, and in each case I have failed to find even traces of *Sporotrichum* or *Empusa*. Small and large have apparently taken to traveling from the same motive. I have only observed this in infected fields, until the time when so many bugs were flying (during the last week of July and the first week of August), when there seemed to be a general dispersal in all fields.

Near Marion, Marion county, M. C. Price, after securing infection from our laboratory, used it, he says, with splendid results. Within two weeks his bugs had "bunched, bursted, and died." Thereupon several of his neighbors

came to him for supplies of infection, and he declares, "almost to a man, the reports were similarly successful." The time for results to be seen was the same in the majority of cases. A few white-fungus-covered bugs were found in Mr. Price's field. I can vouch that where there had certainly been many bugs, there were none worthy of mention at the time of my visit. It has not fallen to my lot to see the bugs "bunching, burst, and die," if burst and die they do, as reported so often by men of intelligence.

In conclusion I have to say, that the season, so far as my observations extend, has been, all things considered, a very good one in percentage of successful reports. The percentage of favorable reports will average, I think, about the same as last year's, notwithstanding the fact that, while chinch-bugs were more generally distributed throughout the State this year, they have not been nearly so numerous in the fields in which they made their appearance. The observation that the infection works more rapidly and a more complete extermination where the bugs are thickest holds good for this season as it did last. A large number of the unfavorable reports I consider to be due to the want of sufficient numbers of bugs in close proximity to each other for successful work. Nowhere have I found a chinch-bug disease prevailing as an epidemic this year, from the fact just stated. Upon the whole, the conditions of our present season have, I think, been less favorable than those of last.

My work as your agent has been attended with no unpleasant circumstances, as far as the people of our fair State are concerned. Everywhere I have met with the kindest treatment. I find the interest in field-pest extermination fast increasing among the farmers who openly welcome the aid of science in both the cultivation and care of their crops and also in the extermination of pests destructive to the products of their toil. With the aim and work of the Experiment Station, I have everywhere found the people in sympathy and watching with interest the final outcome of artificially-propagated infections for pest extermination. In such education they express themselves as seeing an economic value worth to the State of Kansas a thousand times the cost expended upon it.

Yours obediently,

ERNEST C. HICKEY.

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#### IV.—REPORT OF A FIELD TRIP BY ASSISTANT STEVENS.

*F. H. Snow, Director of Experimental Station:*

Acting under your advice, I started, July 13, for Reno county, Kansas, where several packages of infection material had been sent. A letter had been received at your office from Mr. Hyde, living near Pretty Prairie P. O., stating he had applied infection in his corn field, and asking for further advice. I reached Mr. Hyde's farm on the morning of the 14th, and we went at once to his corn field. There I found the bugs had worked in about 10

rows on the side next to the wheat field. He said the bugs were not nearly so numerous as when he began putting in the infection, but he did not know what had become of them. We began turning over the clods, and there in large quantities were bugs of all ages swarming, and masses of empty skins, and a large number of dead bugs covered with the white growth of *Sporotrichum*. Mr. Hyde had attached no importance to these white bugs, in fact, he did not recognize them as bugs. My magnifier, however, made this fact clear to him. We found these white bugs throughout the part of the field attacked by bugs. Mr. Hyde had worked diligently with the infection. His infection box was a thin cigar box! In our own experience boxes with thick sides retain moisture longer and give better results.

We visited Mr. Mendenhill's field, which adjoins Mr. Hyde's. Here the bugs had not been so numerous as at Mr. Hyde's, and no infection had been used. I could find no skins in this field, while at Mr. Hyde's they were in patches at the base of every hill. By diligent scratching about, I found the *Sporotrichum* bugs. At Mr. Hyde's white bugs were plentiful. Mr. Hyde stated that the wind had been blowing from the east a few days previously, and the infection might have been brought in this way. Mr. J. S. Morton had obtained infection from our laboratory, and I visited his field. He said there was hardly one bug now where there were 10,000 before he put in the infection, and indeed there were few bugs in his field at the time of my visit. I could find white bugs here and there, and some empty skins scattered about in the soil. Mr. Morton said the corn had been literally covered with bugs. These were the only fields in this vicinity that had been attacked by bugs, and corn was everywhere in prime condition.

At Hutchinson I saw Wm. E. Hutchinson, president of the Valley State Bank, and he gave me a striking account of his last year's experience. He said the bugs were making a rapid and clean sweep of his corn, and when he read in your directions that it might take a week or more before the infection began to work, he had no hope of saving his crop. But after he put the infection in the field, the bugs ceased their ravages and died in masses, turning white. He had just started an infection box for this year at the time of my visit, but with no immediate evidence of success.

Mr. Briggs, living near Nickerson, had obtained infection from Moore & Chrisman at Hutchinson, to whom you had sent packages for distribution. Mr. Briggs told me nearly an acre of corn had been devoured by the bugs when he got the infection. I found only a few bugs in a limited locality in his field. If the infection was instrumental in thinning out his bugs, as observations in other fields seemed to evidence, the recent rains had obliterated all traces of it. Mr. Hoath and Mr. Wiley, not far from Mr. Briggs, had like experiences—the bugs remaining in their fields, when I saw them, were very few, and doing no noticeable damage. Mr. Morris, whose field adjoins Mr. Briggs's, had just started his infection, and the disease was showing its effects in his box. It is worthy of note, here, that while the bugs had practi-

cally disappeared in the fields of Mr. Briggs, Mr. Hoath, and Mr. Wiley, where the disease had already had time to do its work, in the field of Mr. Morris the bugs were still in force. I found on the farm of Mr. Strickler, where the infection had been in his corn field for five days, that the bugs were dying rapidly. I could find large numbers of *Sporotrichum*-covered bugs under the clods and fallen corn stalks. That part of Mr. Strickler's field where the disease was at work was only separated from the farm of Mr. Morris by a road and small uncultivated field.

To sum up: In no field did I find all the bugs exterminated by the disease. In all of the fields where the infection had been working for two weeks, the bugs had so greatly decreased in number as to be hardly worthy of note. In one field where the infection had been only a few hours the bugs were still in force. In another field where the the infection had been scattered five days previously the bugs were rapidly dying, and the dead bugs were covered with a vigorous growth of *Sporotrichum*.

Respectfully submitted,

W. C. STEVENS.

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#### V.—LIST OF FIELD EXPERIMENTERS MAKING REPORTS.

**Allen County.**—Successful, 14; unsuccessful, 9; doubtful, 4; no trial, 3.

Ard, M., Elsmore. July 13; successful. Saved corn 27 bushels.  
Barth, C., Iola. May 30; successful. Saved corn lying next to wheat; gave infected bugs to a neighbor who saved corn.  
Blackmar, T., Humboldt. July 21; successful.  
Buchanan, W., Iola. July 11; unsuccessful.  
Busby, H., LaHarpe. June 15; unsuccessful.  
Butler, J., Iola. May 31; successful.  
Cozine, R. H., Carlyle. July 13; successful.  
Delaplain, J. W., Iola. July 23; no trial.  
Dornbergh, J. C., Humboldt. July 7; unsuccessful.  
Fisher, P. W., Iola. June 16; unsuccessful.  
Fulks, V. P., Iola. June 9; successful. Saved some corn.  
Harris, G. H., Wise. July 19; doubtful.  
Hottenstein, J. O., Humboldt. July 28; doubtful.  
Mabie, E. R., Geneva. July 21; unsuccessful.  
May, W. B., Bayard. July 12; successful. Saved corn 50 bushels; saved millet.  
Newell, J. H., Iola. July 21; successful. Saved corn 300 bushels; saved timothy.  
Roedel, A., Elsmore. July 11; successful.  
Roehl, G., Humboldt. July 21; successful.  
Saunders, W., Humboldt. Successful.  
Sellegren, J. B., Elsmore. July 23; doubtful.  
Smith, H., Humboldt. July 8; doubtful.  
Spofford, D. A., Moran. June 21; unsuccessful.  
Swanson, J. P., Savonburg. No trial.  
Tredway, J. T., La Harpe. June 3; unsuccessful.  
Trimble, S., Bayard. July 21; successful. Saved corn 1,000 bushels.  
Troutwine, M., Iola. July 27; no trial.

Waters, Henry, Iola. July 9; successful.  
Willenburg, F. M., Humboldt. July 18; unsuccessful.  
Wolf, J. W., Iola. July 2; successful. Saved corn.  
Works, C. W., Humboldt. June 20; unsuccessful.

**Anderson County.**—Successful, 18; unsuccessful, 1; no trial, 3.

Alexander, H. P., Sugar Valley. July 11; successful. Saved corn and wheat.  
Buford, Geo., Colony. Obtained infection of W. J. Lane; successful.  
Burns, Chas., Garnett. Obtained infection of W. J. Lane; unsuccessful.  
Culen, J. I., Colony. August 1; no trial.  
Fergus, S. M., Glenlock. July 14; successful.  
Fuller, L. A., Garnett. Obtained infection of W. J. Lane; successful.  
Henning, J. A., Garnett. July 13; successful; saved corn 10 acres.  
Ländis, H. D., Westphalia. Obtained infection of W. J. Lane; successful.  
Lane, W. J., Garnett. June 9; successful.  
Lee, A. R., Greeley. May 30; successful.  
Macklin, T., Greeley. June 4; successful.  
Martin, C. F., Greeley. July 26; no trial.  
Moler, A., Mineral Point. July 13; successful.  
McCall, J. M., Greeley. July 25; no trial.  
Patton, Geo., Garnett. Obtained infection of W. J. Lane; successful.  
Quitt, W. H., Lone Elm. July 26; successful.  
Reynolds, Chas., Kincaid. July 18; successful. Saved corn.  
Ribstock, C. T., Garnett. Obtained infection of W. J. Lane; successful.  
Wallace, J. D., Welda. June 14; successful.  
Walrad, L. D., Mount Ida. July 12; successful. Saved corn 50 bushels.  
Watson, J. H., Garnett. July 12; successful. Saved corn.  
Wilkins, R. J., Welda. June 16; successful.

**Atchison County.**—Successful, 2; unsuccessful, 1.

Reese, D. M., Atchison. July 22; successful. Saved corn and oats.  
Sutter & Bros., Effingham. July 18; unsuccessful.  
Warner, S. D., Lancaster. July 29; successful.

**Barber County.**—Successful, 8; unsuccessful, 2; doubtful, 1.

Chapin, F. B., Medicine Lodge. July 12; successful. Saved six acres of corn.  
Cox, J. H., Ætna. July 9; successful. Saved corn.  
Elmore, Nellie, Hazelton. July 18; successful.  
Hahn, J. O., Medicine Lodge. July 1; doubtful.  
Hinman, C. I., Medicine Lodge. July 8, successful. Saved sorghum cane 20 tons.  
Keith, E., Sharon. August 30; successful. Saved wheat.  
Lainy, Geo., Wingona. June 30; unsuccessful.  
Osborne, W. H., Medicine Lodge. July 11; successful.  
Turner, J. T., Medicine Lodge. August 29; successful. Saved corn 200 bushels, and  
fall wheat.  
Walton, Thos., Deerhead. July 12; unsuccessful.  
Wright, J. C., Medicine Lodge. August 29; successful. Saved corn.

**Barton County.**—Successful, 2; unsuccessful, 1; doubtful, 1; no trial, 1.

Buck, O. H., Ellinwood. July 30; doubtful.  
Cope, D., Millard. July 13; successful. Saved corn 100 bushels.  
Livingstone, L. H., Galatia. July 16; unsuccessful.

Neier, C., Great Bend. June 6; successful. Saved some barley.  
Wonsetter, J., Verbeck. July 26; no trial.

**Bourbon County.**—Successful, 7; unsuccessful, 5; doubtful, 1.

Conner, Jas., Fort Scott. July 27; successful. Saved sorghum cane 8 acres.  
Dunlap, W. G., Godfrey. July 20; successful. Saved corn 350 bushels.  
Eves, G. P., Uniontown. June 13; successful. Saved corn 750 bushels in one field,  
and some in other fields.  
Hill, J. D., Fort Scott. July 22; unsuccessful.  
Martin, J. W., Barnesville. June 4; unsuccessful.  
Morrison, I. C., Fulton. August 24; doubtful.  
McGuire, D. W., Fulton. July 8; successful. Saved 80 per cent. of his corn.  
Plain, J. S., Mapleton. July 21; unsuccessful.  
Schmitz, John, Mapleton. June 27; unsuccessful.  
Spence, C. B., Marmaton. July 27; unsuccessful.  
Stewart, J. C., Bronson. July 14; successful. Saved corn.  
Strode, A., Fort Scott. July 14; successful. Saved corn 200 bushels.  
Williams, E. W., Glendale. July 16; successful. Saved 5 acres of corn.

**Brown County.**—Successful, 1.

Bell Bros., Horton. July 23; successful. Saved corn.

**Butler County.**—Successful, 30; unsuccessful, 6; doubtful, 8; no trial, 5.  
Amlong, C. G., Keighley. July 14; successful.  
Armstrong, E. E., Benton. July 4; successful.  
Ball, A. C., Rose Hill. July 4; successful. Saved millet and corn.  
Bamler, Jacob, El Dorado. July 26; unsuccessful.  
Becroft, H., Beaumont. July 26; successful. Saved some millet and corn.  
Beedy, F., Providence. June 25; successful.  
Boasen, R. C., Providence. July 5; doubtful.  
Bodie, I., White Water. July 16; successful. Saved some corn.  
Bourne, B. F., El Dorado. July 16; successful. Saved corn and oats.  
Brumbaugh, F. A., Sycamore Springs. July 9; successful. Saved corn 30 acres.  
Canfield, C. H., El Dorado. August 1; no trial.  
Claassen, J. H., Brainerd. May 24; unsuccessful.  
Corfman, P., White Water. Doubtful.  
Crawford, J. E., Elbing. July 9; successful.  
Cundell, C., Leon. July 19; doubtful.  
De Moss, T. A., Leon. July 5; successful.  
Dierstein, H., Sycamore Springs. May 31; successful. Saved corn 500 bushels,  
millet 8 tons.  
Ellinghouse, John, Douglass. July 6; no trial.  
Faler, D. A., Douglass. July 4; unsuccessful.  
Farrar, H. R., Leon. July 19; successful.  
Fuller, M. E., Andover. July 23; no trial.  
Gardner, C. A., Rosalia. July 16; no trial.  
Garen, D. A., Beaumont. July 26; successful. Saved millet 100 bushels, Kaffir corn  
200 bushels.  
Gourley, A. H., White Water. July 14; successful. Saved some corn and millet.  
Grover, H. H., El Dorado. July 9; doubtful.  
Guenther, L. H., Pontiac. July 12; doubtful.  
Hiser, Wm., White Water. June 29; successful. Saved corn 500 bushels, oats 15 acres.

Hite, D. E., Augusta. July 11; successful. Saved corn and sorghum.  
Hopkins, J. A., Potwin. May 24; successful.  
Knorr, Henry, Keighley. July 19; successful. Saved some corn and Kaffir corn.  
Kretzenger, S., Rose Hill. July 8; successful. Saved some wheat and corn.  
Lee, J. F., Cage. July 4; doubtful.  
Leh, E., Rosalia. July 16; successful. Saved corn 280 bushels.  
Maurer, J., Keighley. July 30; doubtful.  
McBride, M., Benton. June 29; successful. Saved some sorghum, corn, and oats.  
Peffley, Z., El Dorado. June 24; successful. Saved corn.  
Pilcher, J. R., Latham. July 19; successful. Saved corn, Kaffir corn, sorghum, and broom-corn.  
Reynolds, J. L., Freedom. July 14; successful. Saved corn.  
Richardson, O., El Dorado. July 23; unsuccessful.  
Robinson, W. G., Sycamore Springs. July 29; successful.  
Royer, W. B., Towanda. June 17; unsuccessful.  
Ruckle, W. H., El Dorado. July 11; successful. Saved corn 200 bushels.  
Scrivner, M. V., Elbing. July 7; successful. Saved corn 644 bushels.  
Snyder, Wm., Towanda. July 18; successful. Saved corn 1,500 bushels.  
Tatum, G. B. M., Leon. May 30; doubtful.  
Thomas, C. W., Douglass. July 4; successful. Saved corn 200 bushels, millet 6 tons.  
Ulmer, F., Whitewater. June 27; successful. Saved corn 400 bushels, millet 2½ tons.  
Webb, E., Andover. July 8; no trial.  
Winn, W., Leon. July 11; unsuccessful.

**Chase County.**—Successful, 25; unsuccessful, 6; doubtful, 3; no trial, 3.

Beck, E. H., Elmdale. June 25; unsuccessful.  
Bemer, W., Homestead. July 6; successful. Saved corn 10 acres.  
Breese, L. B., Elmdale. June 28; doubtful.  
Coleman, L. W., Cottonwood Falls. June 18; unsuccessful.  
Cuthbert, R., Cottonwood Falls. July 16; successful. Saved corn 20 acres, millet 8 acres.  
Dye, J. H., Clements. July 12; successful. Saved corn 400 bushels.  
Faris, W., Elmdale. July 11; successful.  
Fent, A. T., Thurman. July 12; successful. Saved corn 400 bushels.  
Fink, H. W., Hymer. July 13; successful.  
Glines, Mrs. E. D., Toledo. July 12; successful. Saved corn 200 bushels; prevented injury to 17 acres of millet.  
Gorden, C. A., Toledo. June 30; successful. Saved corn "35 rows."  
Harris, W. M., Elmdale. July 11; successful. Saved corn 500 bushels.  
Horner, J. R., Clements. June 6; unsuccessful.  
Ice, A. R., Clements. July 6; successful. Saved corn 26 acres.  
Jacobs, J. L., Elmdale. July 16; successful. Saved some corn.  
Jennings, C. S., Matfield Green. July 2; successful. Saved corn 200 bushels, also wheat.  
Lehman, L., Elk. June 17; successful. Saved wheat 50 bushels.  
Ludwig, J., Homestead. July 1; unsuccessful.  
Macy, J. H., Elba. June 28; successful. Saved corn 2,000 bushels.  
Maxwell, W., Elmdale. July 11; successful. Saved corn.  
Micheljord, C. J., Cottonwood Falls. July 21; successful. Saved corn.  
Murphy, E. O., Elk. July 15; no trial.  
Norton, W., Cottonwood Falls. July 5; successful. Saved corn 1,000 bushels.  
Osborn, G., Toledo. June 29; doubtful.

Patterson, W. D., Hymer. July 11; successful. Saved Kaffir corn 10 acres.

Philion, W. H., Clements. July 11; successful. Saved corn the larger part of 25 acres.

Robinson, E. L., Hymer. July 16; doubtful.

Short, T. F., Saffordville. June 22; successful. Saved corn 25 acres.

Simmons, C. L., Strong City. July 9; successful.

Smith, M. C., Cottonwood Falls. —; unsuccessful.

Starkey, F., Elmdale. June 14; unsuccessful.

Stephenson, H. C., Clements. June 25; successful. Saved corn.

Teat, R., Elmdale. July 16; successful.

Triplett, W. H., Elmdale. July 16; successful. Saved corn 500 bushels, and most of 10 acres of millet.

Way, G. G., Elmdale. June 17; successful. Saved millet five tons.

Williams, H. E., Cedar Point. August 3; no trial.

Worley, I. L., Home. —; no trial.

**Chautauqua County.**—Successful, 8; unsuccessful, 3; no trial, 1.

Appleby, J. M., Leeds. July 2; successful.

Champlin, J. F., Cedar Vale. July 6; successful. Saved corn and cane.

Gaddie, B., Hewins. July 6; successful. Saved corn 200 bushels.

Goodell, J. W., Sedan. August 30; unsuccessful.

Haines, J. K., Wauneta. July 2; unsuccessful.

Hancock, S. C., Sedan. July 5; successful.

Hosmer, J. P., Cedar Vale. July 18; successful. Saved corn 300 bushels.

Jacobs, R. L., Sedan. July 11; successful. Saved corn.

Jones, C. H., Niotaze. August 30; successful.

Layout, G. W., Hewins. July 13; no trial.

Van Leman, H. H., Sedan. July 19; unsuccessful.

Venning, J., Cloverdale. June 29; successful.

**Cherokee County.**—Successful, 16; unsuccessful, 10; doubtful, 2; no trial, 2.

Baird, W. W., Friendship. July 6; successful.

Bieman, Wm. B., Sherman City. June 16; successful.

Byrd, J. C., Columbus. August 18; successful. Saved corn and wheat.

Capron, E., Columbus. July 19; successful. Saved corn 100 bushels.

Coble, D., Sherwin. July 20; unsuccessful.

Cutz, Thos., Star Valley. July 25; unsuccessful.

Duncan, W. B., Columbus. July 9; successful. Saved some corn.

Eads, G. W., Cherry. July 11; successful.

Feurst, H., Columbus. May 30; successful. Saved some corn.

Flynn, Thomas, Columbus. July 22; unsuccessful.

Hall, K., Crestline. July 6; successful. Saved corn 400 bushels.

Higgins, J. M., Sherwin. August 5; unsuccessful.

Horne, Jno., Strippville. August 1; unsuccessful.

Howard, T. B., Baxter Springs. July 15; successful.

Laizure, J. D., Columbus. May 24; unsuccessful.

Lawrence, E., Varek. July 29; successful. Saved some corn.

McCollister, G. A., Columbus. July 14; successful.

Neal, R. D., Columbus. July 11; unsuccessful.

Osthoff, F., Columbus. July 15; successful. Saved corn 300 bushels.

Potter, O. O., Columbus. May 24; successful. Saved corn.

Pullen, J. J., Sherwin. July 8, successful. Saved corn 70 bushels.  
Rainter, H. J., Galena. August 4; no trial.  
Rendel, G. A., Baxter Springs. August 22; unsuccessful.  
Rhoads, O. A., Columbus. July 11; unsuccessful.  
Stearns, T. B., Pleasant View. July 22; doubtful.  
Stevens, P. K., Weir. July 8; unsuccessful.  
Topping, W., Hallowell. July 24; successful. Saved some corn.  
Webb, Crawford, Melrose. No trial.  
Will, Peter, Keelville. June 30; doubtful.  
Yenichek, F. G., Neutral. July 23; successful.

**Clay County.**—Successful, 32; unsuccessful, 17; doubtful, 4; no trial, 6.

Alm, J., Clay Centre. June 16; unsuccessful.  
Amcoats, S., Clay Centre. July 4; successful. Saved some corn.  
Anthony, A. P., Clay Centre. July 6; no trial.  
Atwood, W., Fact. June 28; successful. Saved corn 125 bushels.  
Avery, H. F., Wakefield. July 23; no trial.  
Avery, W., Wakefield. July 20; successful. Saved some sorghum.  
Bass, J. W., Athelstane. July 23; successful. Saved corn 25 acres.  
Blackwood, J., Clay Centre. May 24; unsuccessful.  
Boutwell, C., Wakefield. July 13; no trial.  
Bowers, E. A., Green. July 14; successful. Saved millet 5 acres.  
Buckel, W. T., Wakefield. July 9; successful. Saved some corn.  
Cain, J., Broughton. August 1; successful.  
Clark, J., Wakefield. July 16; successful.  
Cobb, T. S., Wakefield. June 6; no trial.  
Cole, E., Clay Centre. June 23; doubtful.  
Crandall, J. R., Clay Centre. May 24; unsuccessful.  
Crook, H. L., Oak Hill. July 25; successful. Saved corn 100 bushels.  
Dimon, N. H., Exeter. July 20; doubtful.  
Engel, S. H., Wakefield. May 24; successful. Saved some wheat.  
Ensign, G., Clay Centre. July 11; doubtful.  
Fraser, D., Wakefield. July 12; successful. Saved corn 200 bushels.  
Funk, J., Clay Centre. July 11; successful.  
Gaston, S. S., Wakefield. July 12; unsuccessful.  
Gates, M. L., Wakefield. July 15; successful. Saved corn 300 bushels.  
Green, M. R., Industry. June 18; successful. Saved corn 500 bushels, millet 36 tons,  
some wheat and oats.  
Grounds, R., Broughton. June 6; successful. Saved some wheat.  
Hackney, G., Wakefield. July 4; successful.  
Henry, W. J., Industry. July 20; unsuccessful.  
Hohman, J., Green. July 15; successful. Saved some corn.  
Howe, A. C., Idana. June 4; unsuccessful.  
Huff, A. J., Industry. July 4; successful. Saved some corn.  
Hulin, A. J., Green. July 9; successful. Saved corn 30 bushels.  
Lemar, D., Green. July 11; unsuccessful.  
Loader, J., Bateham. July 12; unsuccessful.  
Martin, J. L., Broughton. July 26; successful. Saved corn 300 bushels, millet 16  
tons.  
Mason, A. W., Fact. August 1; doubtful.  
Mittendorf, T., Clay Centre. July 23; successful.  
McLaughlin, W. W., Clay Centre. May 24; unsuccessful.

McNay, J., Oak Hill. June 11; unsuccessful.  
Newman, A. A., Clay Centre. May 24; unsuccessful.  
Nichol, W., Industry. July 11; unsuccessful.  
Norman, O., Morganville. July 16; unsuccessful.  
Olsen, C. O., Green. July 8; successful.  
Parker, F. M., Broughton. July 14; successful. Saved corn 8 acres.  
Parker, J., Clay Centre. July 1; successful. Saved corn 12 acres.  
Rankin, D. K., Idana. May 24; successful.  
Rose, J. E., Longford. July 18; successful.  
Rowland, C. H., Clay Centre. July 9; unsuccessful.  
Russel, D., Clay Centre. June 10; unsuccessful.  
Starling, W. J., Wakefield. June 9; successful.  
Stewart, W., Oak Hill. July 8; successful. Saved corn 200 bushels.  
Swanberg, N., Clay Centre. July 20; unsuccessful.  
Thomas, W., Clay Centre. July 27; successful. Saved corn 1,000 bushels.  
Todd, J., Exeter. May 24; successful. Saved wheat and oats 250 acres.  
Trumpf, Fred., Green. June 28; unsuccessful.  
Walker, J. H., Green. July 18; successful.  
Wallace, G. W., Clay Centre. July 12; no trial.  
Wingrove, O. P., Clay Centre. May 30; no trial.  
Vogelman, J. G., Broughton. August 1; successful.

**Cloud County.**—Successful, 34; unsuccessful, 5; doubtful, 4; no trial, 4.

Bean, J. E., Rice. July 14; successful. Saved some corn.  
Bishop, F. S., Glasco. July 14; successful. Saved corn 500 bushels.  
Boyle, J., Glasco. July 12; doubtful.  
Buck, W. E., Hollis. July 11; successful. Saved corn.  
Burbank, J. H., Miltonvale. July 15; successful. Saved corn 600 bushels.  
Butler, W., Glasco. July 18; successful.  
Chapman, F., Glasco. July 13; unsuccessful.  
Christian, J., Clyde. July 23; no trial.  
Crane, J., Miltonvale. June 10; no trial.  
Creager, M. H., Jamestown. July 15; successful. Saved corn 500 bushels, sorghum and millet \$60.  
Cusac, C., Clyde. July 9; successful. Saved corn 100 bushels.  
Cutshaw, J. W., Jamestown. July 20; no trial.  
Darlington, W., Concordia. July 16; successful. Saved considerable proportion of 70 acres of corn.  
Day, J. W., Concordia. July 11; successful. Saved corn 8 acres.  
Diebel, J., Rice. June 18; successful. Saved corn 7 bushels to the acre.  
Doak, N., Concordia. July 15; successful. Saved some corn.  
Feight, J., Clyde. June 6; successful. Saved corn 300 bushels.  
Flynn, J., Meredith. July 12; successful.  
Freelane, C. W., Clyde. June 28; successful. Saved corn 80 acres.  
Fuller, L. O., Ames. July 18; successful.  
Hibbs, A., Heber. July 13; successful. Saved corn 50 bushels.  
Hostutler, W., Macyville. July 18; successful. Saved corn 125 bushels.  
Howard, W., Clyde. June 6; successful. Saved wheat.  
Johnson, A., Miltonvale. July 15; successful. Saved corn.  
Johnson, C. L., Concordia. July 4; successful. Saved corn 200 bushels, also sorghum.  
Jones, E. R., Aurora. June 6; unsuccessful.  
Kenyon, E. M., Concordia. July 14; successful. Saved corn 7 acres.

Lašmier, A. E., Concordia. August 10; no trial.  
 Lindbloom, A., Concordia. July 14; successful. Saved corn 200 bushels.  
 Munger, A., Hollis. July 16; successful. Saved corn and wheat.  
 McMillan, A., Jamestown. June 7; successful. Saved oats 150 bushels.  
 Patterson, P. D., Concordia. July 22; doubtful.  
 Pearce, W. C., Concordia. June 8; unsuccessful.  
 Reeves, R., Concordia. July 11; successful.  
 Rogers, H. J., Clyde. June 8; successful. Saved corn 100 bushels, wheat 50 bushels, barley 50 bushels.  
 Roll, D., Graves. July 1; successful. Saved one-half his corn crop on 120 acres.  
 Roszell, H., Hollis. July 14; unsuccessful.  
 Seyster, J., Concordia. July 12; successful. Saved corn 1,000 bushels.  
 Smith, C. J., Glaseo. June 27; successful. Saved barley 70 bushels.  
 Swaney, J. T., Miltonvale. June 9; successful.  
 Trusdell, L. W., Concordia. July 22; successful. Saved corn 1,050 bushels.  
 Turner, C., Miltonvale. June 16; successful. Saved some wheat and corn.  
 Venard, G. W., Hollis. July 19; doubtful.  
 Walton, R., Aurora. June 15; successful. Saved corn.  
 Willars, J. E., Glasco. June 1; unsuccessful.  
 Willoughby, A. L., Miltonvale. June 8; doubtful.  
 Wilson, A. F., Concordia. July 14; successful. Saved corn 1 acre, sweet corn 5 bushels.

**Coffey County.**—Successful, 37; unsuccessful, 2; doubtful, 1; no trial, 7.

Baker, A. J., Gridley. July 8; successful. Saved corn possibly 280 bushels.  
 Baker, W., Section. July 18; successful.  
 Bartlett, E. T., Sharpe. July 18; successful.  
 Cellar, M. H., Waverly. July 4; successful.  
 Chandler, J. B., Gridley. August 13; no trial.  
 Conrad, C., Burlington. July 4; successful.  
 Cox, Wm., Burlington. July 26; unsuccessful.  
 Coy, E. E., Burlington. July 13; successful. Saved corn 100 bushels.  
 First, J., Waverly. July 23; successful. Saved corn 30 acres.  
 Fitch, D. H., Strawn. July 6; successful. Saved some corn.  
 Fobes, G., Barry. July 8; successful.  
 Forbes, E. L., Agricola. July 25; successful. Saved millet 6 tons.  
 Fritz, A., Waverly. July 4; successful.  
 Garrett, N. H., Waverly. July 8; successful. Saved corn 1,500 bushels.  
 Grennan, J. F., Burlington. July 8; successful. Saved corn 625 bushels, millet 34 tons.  
 Hanna, J. H., Hall's Summit. July 7; successful.  
 Hatcher, W. E., Hall's Summit. July 5; successful.  
 Hawes, J. D., Aliceville. July 14; successful. Saved corn 1,800 bushels, and some millet.  
 Heritage, B., Burlington. July 15; successful. Saved corn 3 acres.  
 Hill, A. W., Burlington. July 23; successful.  
 Johnson, Silas, Crandall. July 18; no trial.  
 Lane & Kent, Burlington. July 5; successful. Saved corn 100 acres.  
 Levering, C. K., Burlington. June 2; successful.  
 Lore, H., Burlington. July 22; successful. Saved corn 100 bushels.  
 McFadden, W., Waverly. July 7; successful. Saved corn 80 acres.  
 Milligan, I. D., Aliceville. July 14; successful.

Morris, A. C., Lebo. July 16; doubtful.  
Mortimer, W. W., Kong. July 5; no trial.  
Noell, C. W., Patmos. June 24; successful.  
Pasmore, J. D., Burlington. July 11; successful. Saved millet 5 acres.  
Patterson, F. F., Burlington. July 23; successful.  
Peres, C. A., Lebo. July 4; no trial.  
Pilkington, J., Waverly. July 1; successful. Saved oats 200 bushels, sweet-corn one-half acre.  
Ramary, E., Lebo. July 11; successful.  
Richard, J. W., Straw. July 7; successful.  
Russell, C., Le Roy. July 7; successful. Saved corn 400 bushels "for neighbor."  
Russell, J., Pottawatomie. July 28; no trial.  
Silsby, J. H., Le Roy. July 5; no trial.  
Smith, G. W., Lebo. July 12; successful. Saved some corn.  
Stone, H. B., Crotty. July 11; successful. Saved some corn.  
Stump, W. H., Lebo. July 22; unsuccessful.  
Tuttle, W., Waverly. July 6; successful. Saved corn 1,000 bushels, millet 10 tons.  
Van Arsdale, T. F., Barry. July 13; successful.  
Vaughan, J., Burlington. July 12; no trial.  
Weatherby, E. S., Le Roy. August 2; successful. Saved corn "2 or 3 bushels."  
White, L. A., Burlington. July 11; successful. Saved corn about 15 acres.  
Zickefoose, W. J., Burlington. July 8; successful. Saved some corn.

**Comanche County.**—Successful, 1; doubtful, 1.

Estill, P. H., Evansville. July 13; successful.  
McIntire, D. T., Coldwater. July 25; doubtful.

**Cowley County.**—Successful, 15; unsuccessful, 4; doubtful, 5; no trial, 1.

Beard, J. A., Winfield. July 22; successful.  
Beardslee, G. W., Cambridge. July 6; successful.  
Brookshire, A., Rock. July 11; successful. Saved corn 150 bushels.  
Brown, T. L., Arkansas City. June 27; successful. Saved corn.  
Cole, I., Winfield. July 19; doubtful.  
Darr, J. W., Burden. July 1; unsuccessful.  
Eaton, G., Maple City. July 13; successful. Saved corn 60 bushels, millet 60 bushels.  
Elliot, J. A., Dexter. July 16; successful. Saved corn 50 bushels.  
Fisher, J., Winfield. July 18; successful. Saved corn 50 bushels.  
Hall, P., Rock. May 24; unsuccessful.  
Hoyt, H. A., Wilmot. August 5; successful. Saved cane 4 acres.  
Magnus, O. H., Otto. July 13; successful. Saved some corn.  
Martin, W. M., Maple City. July 19; unsuccessful.  
Mead, R. J., Maple City. July 12; doubtful.  
Messenger, C. H., Atlanta. July 12; successful.  
Moore, J. L., Winfield. July 26; no trial.  
Nier Bros., Cambridge. July 9; successful.  
Ratley, T., Udall. July 5; doubtful.  
Ray, T. V., Winfield. July 21; unsuccessful.  
Smith, W. A., Atlanta. July 19; successful. Saved corn 200 bushels.  
Soule, C. D., Winfield. June 9; successful. Saved some corn, wheat, and oats.  
Trezise, Wm., Winfield. July 14; doubtful.

Tyson, H., Udall. July 5; successful. Saved corn 35 acres.

Wolfe, C. C., Arkansas City. July 20; successful.

Wren, M. N., Winfield. July 27; doubtful.

**Crawford County.**—Successful, 10; unsuccessful, 11; doubtful, 3; no trial, 7.

Allen, Alfred, Girard. July 22; unsuccessful.

Bornouser, J. F., Green Elm. June 6; successful. Saved 20 per cent. of corn crop.

Brumback, Jacob, Cherokee. July 11; unsuccessful.

Carey, James, Mt. Carmel. July 25; successful. Saved corn 100 bushels.

Champion, J. W., Pittsburg. August 15; no trial.

Crawford, J. C., Girard. July 9; successful. Saved corn.

Cuthbertson, Albert, Girard. August 8; successful.

Ellsesser, P. T., Brazilton. July 20; doubtful.

Funderburg, P., Pittsburg. July 23; successful.

Gillett, W. W., Pittsburg. August 1; unsuccessful.

Gooding, W. R., Girard. August 22; no trial.

Haskin, C. A., Arma. July 2; successful. Saved corn 75 bushels, Kaffir corn 1 acre.

Hitchcock, F. P., Cherokee. July 19; unsuccessful.

Irwin, J. M., Greenbush. July 7; unsuccessful.

Kimball, W. S., Farlington. August 6; no trial.

Laughlin, A., Girard. August 1; unsuccessful.

Libby, C. T., Hepler. July 8; unsuccessful.

Loomis, F., Walnut. July 14; successful. Saved corn.

Lucas, J., Cherokee. July 9; doubtful.

Magruder, C. V., Monmouth. July 4; unsuccessful.

Mansfield, J., McCune. July 16; successful. Saved corn 25 acres.

McGown, A. C., Idell. July 20; successful. Saved some corn.

McWilliams, T. S., Girard. August 3; unsuccessful.

Perry, T. T., Girard. August 1; no trial.

Pierce, H., Hepler. July 14; no trial.

Sayers, J. M., Monmouth. July 2; doubtful.

Shanger, S. H., Frontenac. August 29; no trial.

Slattery, E., Idell. July 11; unsuccessful.

Spigg, J., Pittsburg. July 25; unsuccessful.

Stevenson, J., Walnut. July 15; successful. Saved corn.

Stroup, S. H., Monmouth. July 27; no trial.

**Decatur County.**—Successful, 1; doubtful, 1.

Kride, J. H., Jennings. August 11; doubtful.

Whiteside, T. M., Noreatur. July 27; successful. Saved corn 10 acres.

**Dickinson County.**—Successful, 33; unsuccessful, 13; doubtful, 1; no trial, 5.

Ableson, H., Rhodes. July 7; successful.

Allison, F., Herington. July 11; unsuccessful.

Berger, R. H., Manchester. July 7; successful. Saved corn 400 bushels, millet \$50.

Blackwelder, S. P., Pearl. July 5; successful. Saved corn 20 acres.

Borman, G. M., Navarre. July 18; successful.

Carter, J. C., Abilene. July 15; unsuccessful.

Clark, J. W., Holland. July 6; successful.

Cormack, R. S., Abilene. July 15; successful.

Costello, P., Hope. July 6; successful.

Curtis, G., Manchester. July 6; successful. Saved corn 40 bushels.

Devilbliss, H., Elmo. July 19; successful.  
Dodge, Alfred, Talmage. July 19; unsuccessful.  
Dunnett, J. P., Solomon City. July 14; unsuccessful.  
Ferguson, L. B., Hope. July 14; successful.  
France, T., Abilene. August 22; successful.  
Grice, M., Talmage. July 7; unsuccessful.  
Gutsch, E. O., Elmo. May 27; doubtful.  
Hardy, T. M., Kennedy. July 30; successful.  
Heldstab, J. F., Holland. July 27; successful.  
Hislop, T., Talmage. July 11; successful. Saved corn 450 bushels.  
Horning, J., Dillon. July 1; successful.  
Horton, E. W., Hope. July 22; successful. Saved corn 100 bushels.  
Jenks, J. W., Abilene. July 8; successful. Saved corn 200 bushels.  
Jennings, M., Enterprise. July 23; unsuccessful.  
Jones, F. J., Holland. July 18; unsuccessful.  
Keller, Davie, Chapman. July 4; no trial.  
Leckron, H. F., Abilene. June 15; successful. Saved corn 900 bushels.  
Martin, H., Talmage. July 8; successful.  
Monat, R., Herington. July 15; unsuccessful.  
Mustard, A., Manchester. August 19; unsuccessful.  
Nielson, J. C., Herington. July 25; successful.  
O'Connell, T. J., Elmo. July 18; successful.  
Perry, T., Abilene. June 3; no trial.  
Pray, W. A., Rhodes. July 4; successful.  
Quigg, E. G., Hope. July 7; successful.  
Ridings, J., Solomon City. July 5; unsuccessful.  
Sexton, J. M., Hope. July 7; successful.  
Sexton, G. W., Hope. June 25; successful.  
Sharp, J., Carlton. June 7; successful.  
Shirk, E., Herington. July 11; successful.  
Smith, O. N., Solomon City. July 18; no trial.  
Smith, D. T., Navarre. July 13; no trial.  
Stannard, C. A., Hope. July 14; successful.  
Stecker, A., Elmo. July 15; successful.  
Thorp, T., Manchester. July 20; unsuccessful.  
Trostele, J. D., Hope. July 13; no trial.  
Turner, T., Wesley. July 13; successful.  
Weaver, D., Herington. May 24; unsuccessful.  
Williams, J. W., Hope. July 7; successful. Saved corn 10 bushels per acre.  
Winters, Geo., Chapman. July 18; unsuccessful.  
Wood, S. F., Sutphen's Mills. July 13; successful.  
Woolverton, N. S., Abilene. July 16; successful.

**Doniphan County.**—Unsuccessful, 1; no trial, 1.

Bishop, J. L., Highland. July 15; unsuccessful.  
Forrest, Mike, Troy. July 27; no trial.

**Douglas County.**—Successful, 16; unsuccessful, 2; doubtful, 4; no trial, 5.

Barriclow, S., Baldwin. July 16; successful. Saved corn 6 acres.  
Cotton, S. L., Baldwin. July 2; successful. Saved corn 50 bushels.  
Findley, J., Black Jack. August 14; successful.

Fix, J. A., Big Springs. August 13; no trial.  
Harbour, I. J., Worden. July 12; no trial.  
Hartman, F. W., Appanoose. July 14; doubtful.  
Hornback, S. L., Lecompton. August 2; no trial.  
Howard, C. C., Clinton. July 23; successful. Saved corn 150 bushels.  
Howell, F. N., Lawrence. July 13; successful. Saved corn 200 bushels.  
Jacobs, L. B., Clinton. July 14; successful. Saved corn 175 bushels, wheat 256 bushels, oats 85 bushels. Saved for a neighbor, wheat 200 bushels, corn 300 bushels.  
Kennedy, D. G., Baldwin. July 4; successful. Saved corn.  
Leamer, W. A., Lecompton. August 1; no trial.  
Lothrop, A. H., Vinland. July 26; successful. Saved corn.  
Marvel, P., Baldwin. July 6; unsuccessful.  
Morton, G., Vinland. July 15; no trial.  
Muslow, F., Baldwin. August 2; successful. Saved corn 300 bushels.  
Parnell, A. J., Gideon. July 30; successful.  
Pearson, R. H., Baldwin. July 20; successful.  
Plasket, W., Lawrence. July 26; successful.  
Reynolds, S. M., Lawrence. July 20; successful.  
Roe, W., Vinland. August 17; doubtful.  
Saylor, E. L., Kanawaka. July 15; doubtful.  
Shepard, W., Media. July 27; doubtful.  
Smith, C. C., Twin Mound. July 14; unsuccessful.  
Whisler, J. B., Willow Springs. July 21; successful. Saved corn.  
White, D. N., Media. July 13; successful.  
Winters, L. D., Media. July 15; successful. Saved corn.

#### Edwards County.—Successful, 2.

Denny, W. B., Kinsley. July 13; successful. Saved corn.  
McLewis, D., Lewis. July 12; successful.

#### Elk County.—Successful, 14; unsuccessful, 4; doubtful, 2; no trial, 4.

Albright, P. H., Howard. July 1; no trial.  
Barbour, C., Longton. May 25; successful.  
Basey, J. M., Elk Falls. June 28; successful.  
Bishop, D. J., Grenola. July 19; successful.  
Brundage, W. S., Oak Valley. August 29; unsuccessful.  
Dershem, W. H., Howard. July 19; successful. Saved corn 55 acres.  
Dunn, Sarah A., Longton. July 4; successful. Saved corn 30 acres.  
Evans, Edward J., Moline. July 18; doubtful.  
Fisher, Joseph, Oak Valley. July 9; successful. Saved corn 150 bushels, cane 4 tons.  
Fliener, Aaron, Grenola. July 2; unsuccessful.  
Ford, Z. T., Western Park. June 13; unsuccessful.  
Franklin, S. E., Elk Falls. June 28; successful. Saved corn 25 bushels.  
Glasscock, E. E., Moline. May 30; successful. Saved corn 500 bushels, oats 200 bushels.  
Hanna & Co., Howard. July 23; no trial.  
Hart, J. L., Grenola. July 8; doubtful.  
Hunt, John, Grenola. July 7; successful. Saved corn and millet.  
Long, W. H., Moline. July 11; successful.

Moffitt, Ransom, Howard. June 9; successful. Saved some corn, millet, and sorghum.  
Peel, Geo. W., Howard. June 22; unsuccessful.  
Prather, E. W., Moline. July 13; successful. Saved corn 200 bushels.  
Ryan, Daniel D., Moline. August 1; no trial.  
Summerville, Wm., Longton. July 18; no trial.  
Walker, J. H., Grenola. July 18; successful. Saved millet 6 tons.  
Webster, A. N., Howard. July 5; successful.

**Ellis County.**—Successful, 4; no trial, 1.

Behan, James, Victoria. July 26; no trial.  
Carrick, Thomas, Hays City. July 26; successful.  
Clay, D. T., Walker. July 18; successful. Saved one-fifth of sorghum.  
Mains, J. A., Pfeifer. July 25; successful.  
Schechter, Henry, Hays City. July 26; successful. Saved corn.

**Ellsworth County.**—Successful, 5; unsuccessful, 2; doubtful, 1; no trial, 5.

Brown, J. M., Masmer. July 18; doubtful.  
Doan, W. F., Farisville. July 13; no trial.  
Griffith, J. D., Kanopolis. July 11; unsuccessful.  
Hey, T. W., Wilson. July 20; unsuccessful.  
Hummel, P., Ellsworth. July 13; successful. Saved corn.  
Long, D. B., Ellsworth. August 1; no trial.  
Miller, W. S., Wilson. August 3; no trial.  
Nelson, J., Ellsworth. July 18; successful. Saved sorghum.  
Sheridan, S. J., Carneiro. July 16; successful.  
Stoner, W., Wilson. July 6; successful. Saved corn and oats.  
Williams, I. B., Kanopolis. July 12; successful.  
Woodmansee, M. G., Hollyrood. July 27; no trial.  
Youngman, J. C., Wilson. July 18; no trial.

**Ford County.**—Unsuccessful, 1; no trial, 2.

Finley, J. L., Dodge City. August 18; no trial.  
Werner, J. H., Noland. July 11; unsuccessful.  
Work, H. E., Bucklin. July 21; no trial.

**Franklin County.**—Successful, 14; unsuccessful, 4; doubtful, 3; no trial, 1.

Anderson, S., Williamsburg. July 20; successful. Saved corn 240 bushels.  
Doak, R., Garlington. July 29; doubtful.  
Ernst, J., Pomona. July 11; successful. Saved corn 30 acres.  
Forbes, J. E., Ottawa. July 6; successful.  
Flaherty, J. O., Wellsville. July 11; successful. Saved corn.  
Gettinger, John, Homewood. July 14; successful.  
Glenn, B. G., Pomona. July 9; successful.  
Henderson, J. F., Richmond. July 6; doubtful.  
Horn, J. H., Williamsburg. July 18; unsuccessful.  
Howser, J. W., Centropolis. July 6; successful.  
Hussey, J. T., Lane. July 11; successful. Saved corn 400 bushels.  
Jenkinson, J., Lane. July 16; unsuccessful.  
Miner, M., Princeton. July 12; unsuccessful.  
Moherman, M., Wellsville. July 6; successful. Saved corn. Gave infected bugs to 12 neighbors, who saved corn.

McEroy, H. W., Williamsburg. July 9; unsuccessful.  
 McGinn, Thos., Williamsburg. July 20; successful. Saved corn 60 acres.  
 Smith, J., Wellsville. July 25; successful. Saved corn.  
 Smith, P., Williamsburg. July 6; successful. Saved corn 1 acre.  
 Thompson, Wm., Pomona. July 11; successful. Saved corn 15 bushels per acre.  
 Willford, C., Centropolis. July 11; successful. Saved corn 125 bushels.  
 Wilson, W. H., Williamsburg. Doubtful.  
 Wood, B. F., Richmond. July 19; no trial.

**Geary County.**—Successful, 12; unsuccessful, 8; doubtful, 2; no trial, 4.

Ashbaugh, O., Junction City. May 27; successful. Saved corn 500 bushels; wheat 100 bushels.  
 Badger, B., Milford. July 18; no trial.  
 Badger, M. F., Milford. July 7; unsuccessful.  
 Barber, L. A., Briggs. May 30; no trial.  
 Bower, P. H., Milford. July 5; successful. Saved corn.  
 Brannick, J., Westgate. July 12; successful. Saved corn 10 acres.  
 Cameron, J., Junction City. July 2; successful. Saved corn.  
 Doverspike, F., Welcome. July 11; successful.  
 Estes, C., Ft. Riley. July 1; unsuccessful.  
 Garrison, J. E., Junction City. July 11; doubtful.  
 Hooper, E., Junction City. June 1; unsuccessful.  
 Leithoff, L., Junction City. July 8; unsuccessful.  
 Martin, C. L., Milford. July 1; successful; saved corn 1,300 bushels.  
 Mead, H., Junction City. August 29; unsuccessful.  
 McKnight, G. W., Junction City. July 19; successful.  
 Parker, W. W., Alida. July 7; unsuccessful.  
 Peck, G. C., Junction City. June 29; unsuccessful.  
 Poland, D., Junction City. June 30; doubtful.  
 Poole, W. D., Briggs. July 21; successful. Saved corn 200 bushels.  
 Savage, N. N., Junction City. August 29; successful. Saved young wheat.  
 Say, C. E., Junction City. July 8; successful. Saved some corn, wheat, and millet.  
 Sifers, J. J., Weston. June 28; unsuccessful.  
 Springer, A., Welcome. July 23; no trial.  
 Warboys, M. R., Junction City. July 13; successful. Saved corn 70 acres.  
 Wingfield, G. A., Junction City. June 4; no trial.  
 Zumbrum, C., Junction City. May 31; successful. Saved wheat.

**Graham County.**—Successful, 1.

Bentley, W., Hill City. July 11; successful.

**Greenwood County.**—Successful, 30; unsuccessful, 11; no trial, 2.

Adams, I. D., Severy. August 1; successful.  
 Agard, C., Tonovay. July 18; successful. Saved some corn.  
 Batchelor, W. R., Reece. July 18; successful. Saved corn 20 bushels.  
 Beaumont, H., Star. July 18; successful.  
 Bellman & Sons, Derry. July 2; unsuccessful.  
 Bock, D. B., Lamont. June 21; unsuccessful.  
 Brödöle, S., Eureka. July 6; successful. Saved some corn.  
 Brumbaugh, L., Madison. June 28; successful. Saved corn 800 bushels.  
 Case, A. J., Quincy. July 19; unsuccessful.

Denner, F. H., Eureka. July 11; successful.  
Detheridge, I., Fame. July 4; successful. Saved corn to value \$25; millet \$150.  
Dibert, F., Eureka. July 4; successful. Saved corn 1,000 bushels, oats 400 bushels.  
Dunham, M., Utopia. July 14; unsuccessful.  
Epp, J., Neal. July 1; unsuccessful.  
Gluyas, G. W., Severy. June 6; unsuccessful.  
Haas, W. F., Piedmont. June 25; no trial.  
Hafey, C. J., Eureka. July 26; no trial.  
Harber, J. H., Neal. July 23; successful. Saved corn 200 bushels.  
Hardman, J., Hamilton. May 31; unsuccessful.  
Harrison, C. S., Reece. June 13; successful. Saved some corn.  
Haskin, J. M., Ivanpah. July 13; successful.  
Hastings, P., Eureka. June 15; successful.  
Hoffman, A. B., Reece. July 14; successful. Saved some corn.  
Jackson, E., Brigham. July 15; successful. Saved some corn and millet.  
Johnson, W. R., Eureka. July 13; successful. Saved corn 200 bushels.  
Karriker, J., Eureka. July 12; successful.  
Laplante, D., Madison. July 15; unsuccessful.  
Lowell, D. J., Quincy. July 21; successful.  
Mann, H. D., Eureka. July 8; unsuccessful.  
Martin, David, Eureka. July 18; successful.  
Morley, A. T., Madison. June 15; successful. Saved some corn and millet.  
McClure, T. B., Madison. June 15; successful. Saved some corn and millet.  
O'Neill, E., Utopia. July 14; unsuccessful.  
Prather, J., Reece. July 5; successful. Saved corn "probably 200 bushels."  
Redding, A. L., Madison. June 6; successful.  
Robb, W. E., Neal. July 18; successful. Saved some corn.  
Sanders, H., Flint Ridge. July 25; successful. Saved some milo-maize.  
Short, W. B., Hamilton. July 11; successful.  
Steintorf, J. F., Madison. July 18; successful. Saved some corn.  
Swenney, Wm., Eureka. July 15; successful. Saved corn about 6 acres.  
Wagner, W. P., Madison. July 8; successful. Saved some corn.  
Wiggins, J. H., Eureka. July 19; unsuccessful.  
Wingrove, J. W., Thrall; July 15; successful. Saved some sorghum and millet.

**Harper County.**—Successful, 15; unsuccessful, 3; no trial, 1.

Babcock, J. H., Harper. June 21; successful. Saved corn 4 acres,  
Benson, L. E., Crystal Springs. July 6; successful. Saved corn 100 bushels.  
Benton, M. A., Attica. July 4; successful. Saved some corn.  
Berry, J. H., Inyo. June 30; successful. Saved corn 300 bushels.  
Cormick, Wm., Anthony. July 6; successful.  
Drake, E. A., Fox. July 4; successful. Saved corn 12 acres.  
Dronhard, A., Danville. July 13; successful.  
Fisher, J. W., Albion. June 27; successful. Saved corn 260 bushels.  
Gilbert, B. N., Anthony. August 30; successful.  
Kennedy, E. A., Freeport. June 27; no trial.  
Lawrence, A. M., Anthony. July 8; successful.  
Lees, R. S., Attica. July 1; successful. Saved some corn.  
McAdams, O., Curran. August 3; unsuccessful.  
McLaughlin, J., Harper. July 1; successful. Saved some corn.  
Potter, V. G., Harper. July 11; successful.

Ramséyer, P., Harper. June 28; successful. Saved some corn.  
Rump, F., Freeport. May 24; successful. Saved corn 750 bushels.  
Sayers, J. H., Harper. July 19; unsuccessful.  
Wangler, J., Harper. July 2; unsuccessful.

**Harvey County.**—Successful, 12; unsuccessful, 3; doubtful, 2; no trial, 2.

Bean, J. T., Annelly. July 25; doubtful.  
Blackfan, B. R., Halstead. July 5; successful. Saved corn 1,500 bushels.  
Brown, W. E., Putnam. July 9; successful. Saved some corn.  
Conkle, P. M., McLain. July 11; unsuccessful.  
Cross, A. J., Sedgwick. July 5; successful. Saved corn 200 bushels.  
Danner, A. E. S., Newton. May 31; successful.  
Dart, A. H., Newton. July 11; doubtful.  
Gilchrist, M. D., Walton. July 16; successful.  
Hackney, A. S., Eleanor. July 5; successful.  
Haddock, C. A., Burrton. July 29; unsuccessful.  
Krehbiel, J. J., Newton. June 15; no trial. Gave infection to 25 neighbors, of whom "a few reported favorable, and others could see no benefits."  
Marshall, J. D., Walton. May 24; successful.  
Mort, C., Halstead. July 11; successful.  
Murray, J., Putnam. July 2; successful.  
McArthur, C., Walton. May 24; successful. Saved some corn and wheat.  
Osburn, W. H., Hesston. July 8; no trial.  
Snyder, Jas., Patterson. July 19; successful. Saved some corn.  
Thomas, A. S., Sedgwick. July 14; unsuccessful.  
Wright, P. A., Newton. July 7; successful. Saved some corn.

**Hodgeman County.**—No trial, 1.

Newport, J. A., Marena. August 6; no trial.

**Jackson County.**—Successful, 2; unsuccessful, 1; doubtful, 2; no trial, 1.

Carter, J., Holton. July 26; unsuccessful.  
Franz, J. C., Adrain. July 19; successful. Saved corn 350 bushels.  
Hall, E. H., Hoyt. July 14; doubtful.  
Hogg, W. B., Circleville. July 28; doubtful.  
Lavely, N., Holton. July 15; successful.  
Senner, J., Avoca. July 13; no trial.

**Jefferson County.**—Successful, 13; unsuccessful, 4; doubtful, 1; no trial, 3.

Curry, W. M., Nortonville. July 8; successful. Saved corn to value of "perhaps \$30."  
Boneywitz, L. W., Meriden. July 18; successful. Saved some corn.  
Bundy, A. P., Oskaloosa. July 28; successful. Saved some corn.  
Fast, E. H., Chester. July 13; unsuccessful.  
Hand, I. L., Oskaloosa. July 26; successful. Saved corn about 10 acres.  
Harman, J. B., Valley Falls. July 8; unsuccessful.  
Henry, H. E., Nortonville. July 12; doubtful.  
Kane, W. J., Rock Creek. August 1; no trial.  
Leigh, J., Chester. July 30; unsuccessful.  
Logan, A. A., Dunavant. July 11; successful. Saved corn 125 bushels.  
Martin, W., Winchester. July 15; no trial.

May, D., Williamstown. August 5; successful. Saved corn 100 bushels, and sorghum 4 acres.

McCrea, W. I., Dunavant. July 22; successful. Saved corn 200 bushels.

Ott, M., Valley Falls. July 8; no trial.

Richter, F., Oskaloosa. July 23; unsuccessful.

Riggs, G. G., Rock Creek. July 23; successful.

Rumbaugh, J., Dean. July 15; successful. Saved corn 60 bushels.

Sharrard, L. A., Meriden. July 11; successful.

Shirley, N., Grantville. July 8; successful. Saved corn 50 bushels.

Weber, J., Valley Falls. July 18; successful. Saved some corn.

Whitehead, W. H., Newman. July 22; successful. Saved some corn.

**Jewell County.**—Successful, 44; unsuccessful, 19; doubtful, 5; no trial, 4.

Bassett, W. F., Dentonia. July 13; successful.

Bingham, Jas., Mayview. July 30; doubtful.

Bowman, E. A., Randall. July 15; successful. Saved corn 1,000 bushels.

Brinksworth, T. H., Ionia. June 27; successful.

Britain, J., Mankato. July 8; successful. Saved corn 55 acres.

Brown, J. L., Mankato. June 20; successful. Saved corn 300 bushels.

Buckles, T. A., Burr Oak. July 15; no trial.

Carter, C. W., Burr Oak. July 12; successful.

Cartner, W. M., Ionia; June 28; unsuccessful.

Catlett, J. H., Gregory. July 15; doubtful.

Chilcott, W. T., Mankato. June 8; successful. Saved corn 200 bushels, millet 5 tons.

Colson, C. P., Mankato. June 15; unsuccessful.

Devall, W., Lovewell. July 14; successful. Saved probably 1,500 bushels corn.

Dieman, H. C., Mankato. July 8; unsuccessful.

Douglass, J. E., Ionia. July 12; successful. "Saved the corn."

Failing, Mrs. M., Randall. July 4; successful.

Figgins, J., Burr Oak. June 16, successful. Saved corn 100 bushels, wheat 100 bushels.

Fortney, H. B., Randall. July 7; successful.

Fortune, E., Montrose. July 14; successful. Saved some corn.

Fosdick, M. J., Mankato. June 27; unsuccessful.

George, F. J., Ionia. June 28; successful. Saved corn 500 bushels.

Grabosch, M., Salem. July 13; successful.

Green, W. L., Otego. July 27; unsuccessful.

Haskins, W. U., Lovewell. July 14; successful.

Haworth, W., Montrose. June 8; successful. Saved corn 100 acres.

Higbee, I. F., Montrose. June 8; unsuccessful.

Hiler, A., Otego. June 23; successful. Saved some corn, wheat, and millet.

Hollingsworth, T. H., Webber. July 15; doubtful.

Holmes, J. M., Webber. July 7; successful.

Howell, W. G., Mankato. May 30; unsuccessful.

Hull, W. E., Jewell City. July 14; unsuccessful.

Huntsinger, J. D., Esbon. July 11; unsuccessful.

Hurst, J., Esbon. July 6; successful. Saved corn 100 bushels, millet 6 tons.

Hutcheson, S. Y., Rubens. July 8; unsuccessful.

Hutchinson, D., Ionia. July 13; successful. Saved corn 500 bushels, oats 460 bushels.

Jacobs, J. L., Mankato. July 11; successful. Saved some corn.

Jordan, J. R., Burr Oak. July 13; unsuccessful.

Kelley, J. R., Formosa. July 2; successful. Saved some corn.

Knapenberger, M. F., Jewell City. June 25; successful. Saved some corn.

Knight, J., North Branch. July 13; unsuccessful.

Kramer, G. R., Jewell City. July 5; successful.

Kruse, C. T., Ionia. July 8; successful. Saved corn 200 bushels.

Lloyd, A. D., Webber. July 18; no trial.

Long, J., Ionia. July 1; no trial.

Maravek, F., Otego. July 15; unsuccessful.

Mayfield, W. R., Dentonia. May 24; successful. Saved some wheat, oats, and rye.

Mohler, T. R., Formosa. July 15; unsuccessful.

Moser, R. L., Mankato. July 11; successful. Saved some corn.

Moyer, P., Otego. July 18; unsuccessful.

McLaughlin, J. D., Ionia. July 18; successful. Saved some corn.

Pair, F. G., Burr Oak. July 12; successful.

Palmer, W. C., Jewell City. July 4; unsuccessful.

Paynter, C. S., Webber. July 19; successful.

Pixler, J. B., Burr Oak. July 25; no trial.

Renshaw, J. W., Webber. June 27; successful. "Saved the corn."

Ritter, J., Esbon. July 5; unsuccessful.

Rock, J. F., Mankato. July 19; doubtful.

Rose, A., Jewell City. May 31; successful. Saved wheat 400 bushels, and 400 bushels wheat for a neighbor.

Sellers, A. C., Randall. July 8; successful. Saved corn 1,215 bushels.

Severson, Ole, Randall. June 14; successful. Saved some corn.

Shoemaker, E., Randall. July 11; successful. Saved one-half of corn crop.

Sluyter, H. O., Jewell City. July 12; successful. Saved one-third of corn crop.

Smith, O., Mankato. July 15; doubtful.

Stockham, G. W., Mankato. June 6; unsuccessful.

Thomas, D., Ionia. July 14; successful. Saved some corn.

Tippin, W. D., Rubens. July 28; successful. "Saved most of my corn."

Vader, J., Montrose. July 25; successful.

Vandeenter, C., Mankato. June 29; successful. Saved some corn, and 30 acres of millet.

Vandeenter, C. C., Jewell City. June 28; successful. Saved corn 1,750 bushels.

Walker, J. C., Mankato. July 11; successful. Saved corn 250 bushels.

West, P. A., Rubens. July 12; successful. Saved corn 38 acres.

Zumbrum, H. W., Athens. July 20; unsuccessful.

**Johnson County.**—Successful, 3; doubtful, 1; no trial, 1.

Hubbard, E. H., Ocheltree. July 26; no trial.

Kantz, J., Edgerton. June 14; doubtful.

Kay, W. S., Wilder. July 21; successful.

Perkins, R. C., Edgerton. July 13; successful.

Shreves, F., Morse. August 12; successful.

**Kingman County.**—Successful, 2; unsuccessful, 5.

Calhoun, Wm., New Murdock. August 3; unsuccessful.

Gibbons, R. M., Kingman. June 29; successful. Saved corn 400 bushels, cane 10 tons, millet 15 tons.

Goenner, W. G., Rochester. August 22; successful. Saved 1½ tons broom corn, also some wheat.

McKenna, Edward, Kingman. June 28; unsuccessful.

Wagner, J. F., Kingman. June 27; unsuccessful.  
Walker, C. L., Cunningham. July 28; unsuccessful.  
Walker, J. P., Cunningham. July 13; unsuccessful.

**Kiowa County.**—Successful, 2; no trial, 1.

Cameron, Thomas, Belvidere. August 22; successful.  
Koontz, J. B., Mullinville. August 29; successful.  
Woodward, I. H., Haviland. August 2; no trial.

**Labette County.**—Successful, 20; unsuccessful, 13; doubtful, 2; no trial, 5.

Baldwin, B. L., Edna. July 4; unsuccessful.  
Barker, J. W., Parsons. August 2; doubtful.  
Barnes, A. J., Cecil. July 7; unsuccessful.  
Bottorf, W. P., Parsons. July 18; no trial.  
Broadstreet, W., Labette. July 1; successful. Saved corn "several acres," millet 3 acres.  
Cline, A. J., Elm City. May 24; unsuccessful.  
Conklin, E., Parsons. June 29; successful. Saved corn 300 bushels.  
DeArmon, J., Parsons. July 26; unsuccessful.  
Denison, B. L., Altamont. July 14; successful. Saved some corn.  
Doherty, P., Parsons. July 19; successful.  
Donaldson, W., Oswego. June 29; successful.  
Eakin, W. H., Mound Valley. July 13; successful. Saved some cane and millet.  
Everett, W. A., Chetopa. August 1; successful.  
Ewbank, R., Altamont. May 24; successful.  
Fitch, S. E., Valeda. July 28; unsuccessful.  
Funk, E., Altamont. July 15; no trial.  
Hoover, W. G., Chetopa. June 28; successful. Saved corn 960 bushels.  
Hopkins, E. W., Bartlett. June 24; unsuccessful.  
Humphrey, W. H., Mound Valley. August 1; unsuccessful.  
Kennedy, H. A., Parsons. July 13; successful. Saved some corn.  
Lisle, H., Chetopa. May 25; successful.  
Milke, D. S., Parsons. July 8; no trial.  
Maudlin, J. T., Mound Valley. July 28; no trial.  
Mollenhaw, H. W., Chetopa. June 6; successful. Saved corn  $22\frac{1}{2}$  acres, wheat 25 acres, oats 20 acres, timothy  $17\frac{1}{2}$  acres.  
Morain, J. W., Mound Valley. June 10; no trial.  
McDowell, J. C., Altamont. July 1; successful. Saved corn 5 bushels per acre.  
Nichols, J. T., Labette City. July 4; unsuccessful.  
Olson, O., Mound Valley. July 4; successful.  
Parmele, W., Chetopa. May 25; successful. Saved corn about 320 bushels.  
Perkins, F., Oswego. August 17; successful.  
Richardson, W. S., Mound Valley. June 28; unsuccessful.  
Riddick, Mrs. Anna, Oswego. May 24; successful.  
Rinck, M., Altamont. June 6; unsuccessful.  
Roller, A. B., Altamont. June 20; unsuccessful.  
Slaughter, J. J., Altamont. June 16; unsuccessful.  
Stroud, J. A., Chetopa. August 26; successful. "Saved a great deal of corn."  
Thomas, U., Altamont. July 9; successful. Saved corn 150 bushels.  
Wadsack, C., Oswego. May 24; unsuccessful.  
Wilson, Wm., Montana. May 24; successful. Saved 50 per cent. of corn.

Windbigler, W., Altamont. June 30; successful. Saved corn 57 acres.  
Wortham, M. C., Parsons. July 16; doubtful.

**Leavenworth County.**—Successful, 2; doubtful, 2.

Carter, J. H., Tonganoxie. July 28; successful. Saved some corn.  
Gowell, R. W., Linwood. July 14; successful.  
Kavanaugh, M., Dafer. July 22; doubtful.  
Petherbridge, R. E., Boling. July 14; doubtful.

**Lincoln County.**—Successful, 8; unsuccessful, 5; no trial, 2.

Bertelson, P., Herman. July 19; unsuccessful.  
Cole, D., Bashan. July 14; successful. Saved corn 700 bushels.  
Day, D. B., Lincoln. June 17; successful.  
Francisco, C. W., Bayne. June 27; successful.  
Freeland, R. A., Lincoln. July 1; unsuccessful.  
Johnson, E. E., Beverly. July 18; no trial.  
Martz, G., Bashan. July 14; successful. Saved some corn.  
McClung, T. J., Milo. July 16; successful.  
McGeary, T. W., Tower Springs. July 2; successful. Saved corn 5 acres, and millet 2 acres.  
Patterson, J. W., Bayne. June 27; unsuccessful.  
Stearns, M. N., Lincoln. July 9; unsuccessful.  
Thanka, O. M., Lone Walnut. May 31; unsuccessful.  
Washer, J. C., Barnard. July 13; successful.  
Whitehead, A., Lincoln. July 19; successful.  
Wunderlich, M. E., Sylvan Grove. July 19; no trial.

**Linn County.**—Successful, 3; unsuccessful, 3.

Ayres, J. R., Blue Mound. July 9; unsuccessful.  
Ayres, W. R., Mound City. July 15; successful. Saved three-fourths of corn crop.  
Ewing, S. N., Blue Mound. July 27; successful. Saved some corn.  
Harkness, R. W., Prescott. July 21; successful. Saved millet.  
McCormac, A. J., Blue Mound. July 20; unsuccessful.  
Priest, J. F., Blue Mound. July 29; unsuccessful.

**Lyon County.**—Successful, 50; unsuccessful, 17; doubtful, 6; no trial, 4.

Andrews, J. H., Emporia. July 8; unsuccessful.  
Bamesberger, J. T., Americus. July 1; successful. Saved corn 500 bushels.  
Bartz, H., Americus. June 27; unsuccessful.  
Bender, M., Hartford. July 18; no trial.  
Biddle, G. A., Emporia. ———; unsuccessful.  
Boyland, W., Allen. June 21; unsuccessful.  
Bradfield, Mrs. E., Verdigris. June 15; unsuccessful.  
Bramhill, J., Ivy. July 1; successful. Saved corn "several hundred bushels."  
Brickley, J. P., Americus. July 7; successful. Saved corn 150 bushels.  
Carey, D. E., Reading. July 2; successful. Saved some corn.  
Carey, J. T., Emporia. July 6; successful. Saved corn 120 bushels.  
Chaffee, F. M., Wyckoff. July 4; successful. Saved some corn.  
Chamness, L., Emporia. June 28; unsuccessful.  
Clausen, C. C., Emporia. June 28; unsuccessful.  
Clyborne, W. L., Bushong. July 16; successful. Saved corn 1,200 bushels.

Coklin, J. C., Americus. July 8; successful.

Coman, E. M., Americus. June 27; successful. Saved corn "300 to 500 bushels."

Cotton, J. R., Emporia. June 24; unsuccessful.

Curl, J., Emporia. July 8; doubtful.

Dahlgren, Peter, Air. July 23; successful. Saved some corn.

Dain, R. L., Emporia. June 27; successful. Saved some corn.

Drebert, S. W., Emporia. July 1; successful. Saved corn 535 bushels, oats 150 bushels.

Denchfield, T. R., Air. July 20; successful.

Elliott, S. P., Americus. July 2; successful. Saved corn 1,200 bushels.

Erickson, A., Waushara. July 13; successful. Saved corn 150 bushels.

Erickson, J., Waushara. July 13; successful. Saved corn 100 bushels, millet 6 tons.

Ernst, J., Americus. June 23; successful. Saved corn 50 acres.

Gamble, J. E., Emporia. June 9; unsuccessful.

Gilman, C. W., Elco. July 23; successful. Saved some corn.

Gray, H. H., Emporia. July 2; no trial.

Gunkle, M., Emporia. June 27; successful. Saved corn 40 per cent.

Haas, E. J., Allen. July 13; successful. Saved corn 90 bushels.

Hall, F. P., Emporia. July 1; unsuccessful.

Hammond, H. J., Reading. July 15; unsuccessful.

Hammond, W. E., Reading. July 1; unsuccessful.

Harris, J., Emporia. July 7; doubtful.

Hawkins, F. E., Americus. July 8; successful.

Herbert, Mrs. A. M., Americus. July 25; successful. Saved some corn.

Holmes, C. V., Emporia. July 25; successful. Saved some corn.

Hood, H. P., Americus. June 28; successful. Saved some corn.

Hopkins, J. L., Americus. June 16; unsuccessful.

Hornbarger, J. G., Emporia. June 8; successful. Saved some corn.

Howe, C. L., Emporia. June 28; unsuccessful.

Huffman, Wm., Admire. July 16; doubtful.

Huth, G., Olpe. August 3; no trial.

Janker, M., Olpe. June 28; successful. Saved corn 100 bushels, oats 75 bushels.

Kinzie, C. W., Admire. July 23; no trial.

Kopke, F., Emporia. July 7; successful.

Konz, J. J., Olpe. June 18; unsuccessful.

Lane, J. C., Hartford. July 20; unsuccessful.

Layton, H. T., Allen. June 22; successful. Saved some corn.

Leavitt, Mrs. S. E., Air. July 22; successful. Saved corn 5 acres.

Little, T. F., Emporia. June 3; successful. Saved some corn and wheat.

Mackenthun, J., Americus. June 16; successful. Saved some corn.

Manning, H. W., Emporia. July 19; successful.

Mason, F. G., Emporia. July 11; successful. Saved corn 1,250 bushels.

Mellinger, S., Neosho Rapids. July 5; successful. Saved some corn.

Miller, C., Olpe. May 30; doubtful.

Newlin, E. S., Emporia. July 2; successful. Saved corn 315 bushels.

Parkman, G. W., Emporia. July 4; successful.

Prenninger, M., Americus. July 2; successful. Saved some corn.

Radcliffe, S. D., Allen. July 1; successful. Saved corn 500 bushels.

Reider, R. L., Americus. June 20; successful. Saved corn 650 bushels.

Rush, P., Americus. July 11; successful. Saved corn 120 bushels.

Saunders, Mrs. W. L., Magda. July 14; successful.

Slack, J. F., Emporia. May 31; unsuccessful.

Soule, F. G., Olpe. June 25; successful. Saved some corn.  
Spencer, W. L., Admire. July 4; doubtful.  
Tredway, R. S., Emporia. July 19; successful. Saved corn 1,000 bushels.  
Vandivort, W. S., Bushong. July 2; doubtful.  
Venning, C., Bushong. July 6; successful.  
Voltz, W. F., Reading. June 25; successful. Saved corn 300 bushels.  
Wallace, J. R., Americus. June 25; successful.  
Walstrom, A. P., Stotler. July 26; successful. Saved some corn.  
Watkins, W. H., Olpe. June 8; successful. Saved corn 100 bushels.  
Wetmore, C. H., Emporia. July 2; successful.  
Whitmore, S. C., Air. July 15; successful. Saved corn "several hundred bushels."

Marion County.—Successful, 47; unsuccessful, 7; doubtful, 6; no trial, 5.

Banker, S. J., Kuhnbrook. July 14; successful.  
Bender, A., Florence. July 11; doubtful.  
Bennet, E., Tampa. July 5; successful.  
Blackmar, A. W., Peabody. July 13; unsuccessful.  
Bonesteel, E. H., Peabody. July 15; successful.  
Borton, L. E., Durham. July 2; successful. Saved corn 250 or 300 bushels.  
Bowen, W. E., Ramona. July 9; successful.  
Buckley, J. L., Lincolnville. July 12; successful.  
Buckley, J. W., Lincolnville. June 28; successful. Saved corn 20 acres.  
Chilson, M. D., Quarry. July 11; successful. Saved corn about 150 bushels.  
Clark, J. A., Marion. July 8; successful. Saved some wheat.  
Cochran, W. A., Aulne. July 11; successful.  
Collier, G. L., Marion. July 6; successful. Saved corn about 50 bushels.  
Cunningham, P. W., Florence. July 22; doubtful.  
Darnold, W., Burns. July 12; successful.  
Duvall, I., Peabody. July 5; successful. Saved corn 500 bushels.  
Engel, A., Lincolnville. June 28; unsuccessful.  
Erickson, A., Lincolnville. July 13; successful.  
Fox, J., Florence. May 30; successful.  
Franta, J., Lincolnville. June 24; successful.  
Fraser, D. J., Peabody. July 18; successful. Saved corn and sorghum to value of \$100.  
Good, I., Canada. July 14; successful.  
Hansen, T., Burns. July 9; successful. Saved corn 100 bushels.  
Hartke, H., Lincolnville. July 9; unsuccessful.  
Heise, C., Marion. July 8; successful. Saved corn about 480 bushels.  
Henke, O., Lincolnville. July 11; successful.  
Hershinger, J., Peabody. July 29; successful. Saved corn about 9 acres.  
Heyland, A., Peabody. No trial.  
Hilslip, W., Lost Springs. July 14; successful.  
Holler, A. M., Peabody. June 4; successful. Saved corn 25 acres.  
Hughes, D. J., Antelope. May 31; successful.  
Icke, Mrs. Emma, Lincolnville. June 28; doubtful.  
Knoble, J. F., Florence. July 11; successful.  
Lalouette, A., Florence. July 11; doubtful.  
Lekman, I., Peabody. July 19; successful.  
Leonard, T. M., Peabody. July 6; successful.  
Luth, J., Lincolnville. July 4; successful.  
Lynch, J. S., Burns. June 18; successful.

Mayhugh, J. C., Florence. June 7; no trial.  
Meehan, J. C., Tampa. July 15; successful. Saved corn "possibly 200 bushels."  
McCandless, T. L., Marion. July 9; unsuccessful.  
McGinnis, J. F., Aulne. July 7; successful. Saved corn 500 bushels.  
McNicol, J., Lost Springs. July 12; successful. Saved some corn.  
Otte, G. H., Peabody. July 6; successful. Saved some corn.  
Parr, W. A., Marion. July 16; successful. Saved corn about 30 acres.  
Payton, W., Burns. July 15; no trial.  
Peers, H. E., Marion. July 4; successful. Saved corn 250 bushels.  
Rath, J. C., Antelope. June 28; successful. Saved corn about 28 acres.  
Rayburn, C., Burns. July 1; successful.  
Richmond, L. E., Canada. July 9; successful. Saved some corn and millet.  
Riggle, I., Peabody. July 11; unsuccessful.  
Rowland, D. G., Peabody. July 9; successful. Saved some corn.  
Sandgren, S. O., Lincolnville. July 13; doubtful.  
Siegle, C., Ramona. July 13; successful.  
Smalley, G., Florence. July 15; successful.  
Tracy, T. R., Tampa. July 25; no trial.  
Trumbo, L. E., Peabody. July 20; successful.  
Wagner, F., Burns. June 9; unsuccessful.  
Waterman, C. F., Peabody. July 15; doubtful.  
Weiss, J. S., Ramona. July 6; successful. Saved corn 200 bushels.  
Westbrook, W., Peabody. July 13; successful.  
Whaley, J. E., Marion. July 7; successful. Saved corn 2,700 bushels.  
Winkley, C., Canada. July 12; successful.  
Winkley, R., Canada. July 12; no trial.  
York, E., Lost Springs. July 19; successful. Saved sorghum 1 acre.

**Marshall County.**—Successful, 4; unsuccessful, 2; doubtful, 1; no trial, 3.

Albright, A. L., Waterville. July 15; successful. Saved corn 500 bushels.  
Beacham, R. P., Irving. July 11; successful. Saved corn.  
Burr, Wm., Blue Rapids. July 18; successful. Saved corn.  
Drennan, Chas., Blue Rapids. July 28; unsuccessful.  
Edinborough, F. A., Blue Rapids. August 8; no trial.  
Harris, R. J., Blue Rapids. August 5; no trial.  
Netz, H., Irving. July 6; unsuccessful.  
Norris, H. R., Blue Rapids. July 15; doubtful.  
Wagor, A. B., Waterville. July 13; successful.  
Worley, J. L., Home City. August 19; no trial.

**Miami County.**—Successful, 3; unsuccessful, 2; no trial, 1.

Bain, G., Fontana. August 8; unsuccessful.  
Barrett, J. S., Beagle. August 3; unsuccessful.  
Hoover, M. E., Paola. July 28; successful. Saved corn 35 acres.  
Protzman, A. N., Hillsdale. July 18; successful.  
Timanus, N. A., Jingo. August 2; no trial.  
Wheeler, E. M., Hillsdale. July 18; successful. Saved corn 3 acres.

**Mitchell County.**—Successful, 26; unsuccessful, 3; doubtful, 1; no trial, 3.

Axelson, F. O., Beloit. July 14; unsuccessful.  
Battey, G. S., Glen Elder. July 15; successful.  
Bayly, O., Walnut Grove. July 19; successful. Saved some corn.

Bromley, Ed., Glen Elder. July 25; successful. Saved corn 300 acres.

Brown, M., Blue Hill. July 11; successful. Saved some corn.

Caraway, W. A., Beloit. July 14; doubtful.

Childs, L., Coursen's Grove. July 16; successful. Saved some corn.

Coffman, H., Beloit. July 13; successful.

Cooly, E. C., Beloit. July 13; unsuccessful.

Culp, C. S., Scottsville. July 11; successful. Saved corn 500 bushels.

Davis, G. G., Scottsville. July 11; successful. Saved corn about 900 bushels.

DePoy, J. H., Cawker City. July 15; successful. Saved corn about 1,600 bushels.

Earll, S. W., Glen Elder. May 31; no trial.

Ensworth, Mrs. G. E., Beloit. July 16; successful. Saved corn about 19 acres.

Farristall, T., Beloit. June 21; successful. Saved some corn.

Gilliland, N. H., Beloit. July 12; successful. Saved about 60 acres.

Gnatkowsky, H., Coursen's Grove. July 18; successful. Saved some corn.

Hall, John, Beloit. July 12; successful.

Holder, G., Beloit. July 18; successful. Saved some corn.

Hubaker, S., Glen Elder. July 16; successful. Saved corn 15 or 20 acres.

Jones, J. T., Glen Elder. July 20; no trial.

Kirk, Ed., Simpson. July 27; no trial.

Livermore, A. A., Beloit. July 16; successful. Saved corn 60 acres.

Mead, A. G., Beloit. July 2; successful. Saved corn about 2,800 bushels.

Morris, J. H., Beloit. July 18; successful.

Records, T. E., Beloit. July 6; successful.

Rychel, J., Cawker City. July 11; successful.

Simpson, A. H., Beloit. July 6; successful. Saved corn 100 bushels, oats 50 bushels, some wheat.

Songer, A. A., Victor. July 18; successful. Saved corn about 26 acres.

Thompson, R. J., Cawker City. July 15; unsuccessful.

Thümmel, B., Tipton. July 12; successful. Saved corn 500 bushels.

Walling, L. N., Cawker City. July 12; successful.

White, N. H., Beloit. July 13; successful.

**Montgomery County.**—Successful, 9; unsuccessful, 10; no trial, 2.

Allin, W. H., Coffeyville. August 30; successful.

Anderson, J. M., Coffeyville. July 9; successful. Saved millet.

Baker, H. K., Cherry Vale. June 27; unsuccessful.

Bellaris, H., Cherry Vale. August 2; no trial.

Blex, S., Fawn. July 29; unsuccessful.

Brooks, C. G., Havana. July 11; successful.

DeGeer, J. W., Perkins. July 22; successful.

Elstob, W. H., Havana. August 29; unsuccessful.

Gaskell, S. W., Fawn. July 20; successful.

Hackett, David, Rutland. August 28; successful.

Jeter, J. A., Costello. July 14; unsuccessful.

Jones, T. H., Wayside. July 4; unsuccessful.

Kenoyer, F. L., Independence. August 8; successful. Saved cane  $1\frac{1}{2}$  acres.

Long, W. A., Fawn. June 8; no trial.

McKinney, W. F., Costello. July 28; unsuccessful.

Moore, B. F., Cherry Vale. July 30; unsuccessful.

Odneal, J. W., Carney. July 11; successful. Saved corn 530 bushels.

Ringle, C., Crane. July 9; successful. Saved some corn.

Robbins, L., Coffeyville. July 4; unsuccessful.  
Romig, O. T., Elk City. July 5; unsuccessful.  
Todd, E. P., Cherry Vale. June 14; unsuccessful.

**Morris County.**—Successful, 37; unsuccessful, 13; doubtful, 3; no trial, 5.

Allen, C. D., Kelso. July 4; successful. Saved corn 200 bushels, and millet 10 acres.  
Baker, F., Delavan. July 5; doubtful.  
Bersuch, T., Wilsey. May 30; successful. Saved wheat about 15 acres.  
Blair, H. A., Wilsey. July 4; successful. Saved corn about 900 bushels, millet about 30 tons.  
Brown, J. P., Council Grove. July 30; no trial.  
Bulen, E. D., Dunlap. July 9; successful. Saved corn about 30 acres.  
Bunning, W. L., White City. July 5; unsuccessful.  
Burnett, L. A., Council Grove. July 1; successful. Saved some corn.  
Carson, A., White City. July 4; successful.  
Cress, Wm., Council Grove. July 6; successful. Saved millet 5 acres.  
Curtis, J. F., M. D., Dwight. July 7; no trial.  
Day, H. S., Dwight. July 15; unsuccessful.  
Gangiver, J. B., Delavan. July 15; successful.  
Garey, J. H., Wilsey. July 4; successful. Saved oats about 20 acres.  
Gleason, W. S., Council Grove. June 6; successful. Saved corn 300 bushels.  
Graver, J. K., White City. July 15; successful. Saved some corn.  
Harmon, J. M., Latimer. June 27; successful. Saved corn 25 bushels.  
Harris, B., White City. July 6; unsuccessful.  
Holcomb, F. H., Council Grove. July 13; successful. Saved millet about 100 tons.  
Holt, J., White City. July 2; unsuccessful.  
Howard, W. A., Comiskey. July 7; successful. Saved corn about 250 bushels.  
Hutchinson, Wm., Delavan. July 5; successful. Saved corn 100 bushels.  
Jacobs, A. H., Delavan. July 6; successful. Saved some corn.  
Johnson, K., Latimer. July 19; doubtful.  
Joles, J. G., White City. July 6; successful.  
Kern, A., White City. June 27; successful. Saved some corn.  
Lady, G. M., Latimer. July 8; successful. Saved corn about 390 bushels.  
McCullough, L. F., Delavan. June 27; successful. Saved corn 100 bushels.  
McNaughton, A. S., Council Grove. July 8; successful. Saved some corn and millet.  
let.  
Mitchell, J. I., Diamond Springs. July 9; successful.  
Moyer, A., White City. July 18; successful.  
Nichols, J. R., Dunlap. July 9; unsuccessful.  
Nichols, L., White City. June 11; successful.  
Oberholser, H. B., Burdick. June 11; successful. Saved corn about 10 acres.  
Olson, J. C., Dwight. July 25; unsuccessful.  
Olson, J. E., Dwight. July 19; successful. Saved corn about 150 bushels.  
Osborne, P. L., Council Grove. July 14; unsuccessful.  
Perrine, G. W., Delavan. July 1; unsuccessful.  
Peterson, A., Burdick. July 11; doubtful.  
Pirtle, O. G., Wilsey. July 7; unsuccessful.  
Raley, N., Delavan. June 29; unsuccessful.  
Reed, P. C., Burdick. June 29; unsuccessful.  
Robbins, J. M., White City. July 1; successful. Saved some corn.  
Robinson, J. J., Council Grove. June 21; unsuccessful.

Sample, J. E., Beman. July 13; successful. Saved some barley and corn.  
Sargent, S. L., Dunlap. July 8; successful. Saved corn 25 acres.  
Sheaffer, C., Dunlap. June 28; successful. Saved some corn.  
Shearer, H., White City. July 8; unsuccessful.  
Short, A. L., Field. June 27; successful.  
Smith, J. F., Burdick. July 16; no trial.  
Smith, W. T., Delavan. July 11; no trial.  
Spencer, A. B., Council Grove. July 2; successful.  
Taggart, J., White City. July 14; no trial.  
Teigs, F., Skiddy. August 17; unsuccessful.  
Thomas, M. A., White City. July 4; successful.  
Vorse, J. D., Wilsey. June 25; successful. Saved corn 500 bushels.  
Walton, J., Latimer. June 7; successful. Saved corn 150 or 200 bushels.  
Whittington, S. S., Council Grove. July 12; successful. Saved corn about 500 bushels.

**McPherson County.**—Successful, 4; unsuccessful, 5; no trial, 6.

Boal, I., Canton. July 14; unsuccessful.  
Boyce, D. D., Roxbury. July 11; unsuccessful.  
Buckman, A. J., Monitor. August 1; no trial.  
Day, H. E., Windom. July 1; successful.  
Eyman, D. T., Moundridge. July 18; no trial.  
Freeburg, C. E., Windom. July 19; successful. Saved corn 175 bushels.  
Holmes, E. H., Windom. July 20; no trial.  
Kant, Chas., Elyria. July 19; unsuccessful.  
Lillian, J., Lindsborg. July 4; successful. Saved corn 600 bushels for self, and 800 bushels for a neighbor.  
Milner, G. R., Inman. July 19; successful.  
Nester, J. B., Moundridge. July 28; unsuccessful.  
Pack, W. P., Moundridge. July 28; no trial.  
Pack, R. L., Canton. August 6; no trial.  
Palmquist, A., Smoky Hill. July 9; no trial.  
Taylor, F. A. August 18; unsuccessful.

**Nemaha County.**—Successful, 1.

Smith, O. E., Seneca. July 25; successful. Saved corn.

**Neosho County.**—Successful, 12; unsuccessful, 3; doubtful, 2; no trial, 1.

Beach, J. W., Thayer. July 13; successful. Saved some corn.  
Brewster, Wm., Hertha. July 28; unsuccessful.  
Broadbent, F., Erie. August 8; successful.  
Corn, C. F., Morehead. June 27; successful. Saved corn 4 acres.  
Howell, Ed., Urbana. July 12; doubtful.  
Jenkins, J. W., Earlton. July 15; successful. Saved corn 150 bushels.  
Jones, W. L., South Mound. July 18; no trial.  
Linden, N., Osage Mission. July 11; successful. Saved corn 11 acres.  
Long, D., Osage Mission. July 12; doubtful.  
Mattice, A., Urbana. July 28; successful.  
Michener, T. S., Earlton. July 15; successful. Saved corn 4 acres.  
McNaught, W., Thayer. July 28; successful. Saved corn 1,200 bushels.  
Nafus, J. H., Erie. July 26; successful. Saved millet 6 acres, corn 30 acres.  
Nation, Seth, Urbana. June 29; successful.

Osborne, J. B., Erie. July 2; successful.  
Pitser, G. W., Galesburg. June 15; unsuccessful.  
Riggs, H. A., Morehead. July 12; unsuccessful.  
Tyrrell, J. C., Hertha. July 11; successful.

**Osage County.**—Successful, 46; unsuccessful, 8; doubtful, 4; no trial, 5.

Amos, G. W., Burlingame. May 30; successful. Saved corn 500 bushels.  
Anderson, S. J., Osage City. July 16; successful. Saved corn 3,115 bushels.  
Badsky, J., Overbrook. July 11; successful. Saved millet 40 acres.  
Bailey, C. N., Lyndon. July 22; unsuccessful.  
Barber, J. P., Lyndon. July 7; successful.  
Baum, J. W., Scranton. June 27; successful.  
Boruff, L. J., Peterton. July 18; successful.  
Brown, F., Carbondale. July 19; no trial.  
Calkins, S., Melvern. June 8; successful.  
Claypool, H., Quenemo. July 15; successful.  
Coffman, W. T., Overbrook. July 13; successful.  
Coonrad, F. G., Osage City. July 7; doubtful.  
Culver, L. O., Michigan Valley. July 13; successful. Saved corn 150 bushels.  
Dale, A. W., Melvern. June 24; successful. Saved corn 25 acres.  
Downs, F. A., Lyndon. June 29; partially successful.  
Downer, E. B., Quenemo. July 7; successful. Saved corn 14 acres.  
Edmundson, P. A., Lyndon. July 11; successful. Saved corn 300 bushels.  
Elder, J. S., Olivet. —— successful.  
Failon, E., Maxson. June 25; successful.  
Felch, C. P., Lyndon. July 15; doubtful.  
Ferris, H. L., Osage City. July 8; successful. Saved corn 500 bushels, millet 8 tons.  
sorghum hay 25 tons.  
Flickinger, W. A., Melvern. July 11; successful.  
Gifford, T. M., Burlingame. July 20; successful.  
Glasgow, E. B., Olivet. July 1; successful. Saved corn 400 bushels.  
Haller, B. D., Burlingame. July 25; no trial.  
Hanslip, E. W., Osage City. July 22; successful.  
Harrison, J. E., Quenemo. July 1; successful.  
Hanson, O., Osage City. July 13; successful.  
Henby, T. C., Quenemo. July 4; successful. Saved corn 15½ acres.  
Hopkins, J., Barclay. July 19; successful.  
Johnson, O., Osage City. July 13; successful. Saved corn 2 acres.  
Jones, T. R., Osage City. June 1; unsuccessful.  
Keller, G. L., Quenemo. July 15; doubtful.  
Kepple, P. C., Olivet. July 13; successful.  
Kirtlan, C., Barclay. July 25; successful.  
Larsen, O., Lyndon. July 25; no trial.  
Long, G., Lyndon. July 13; successful. Saved corn 10 acres.  
Lord, E. T., Quenemo. July 6; successful. Saved corn 200 bushels.  
Lusk, T. F., Olivet. July 14; successful.  
Mann, G. R., Olivet. July 19; unsuccessful.  
May, E. A., Quenemo. July 12; successful.  
Moore, W. J., Michigan Valley. July 13; successful. Saved corn 300 bushels.  
Morgan, E. D., Rosemont. July 7; successful. Saved corn 12½ acres, millet 2½ acres.  
Morrison, C. E., Osage City. June 28; successful.  
Morrow, A. J., Ridgeway. June 22; successful. Saved corn 120 bushels.

Norton, F. W., Carbondale. July 18; unsuccessful.  
Nyberg, C. J., Osage City. July 12; successful.  
Oliver, T. B., Burlingame. July 4; no trial.  
Opdyke, H. H., Melvern. July 7; no trial.  
Packer, E. B., M. D., Osage City. July 9; successful. Saved corn 1,000 bushels, oats 250 bushels.  
Parker, R. J., Quenemo. July 12; successful.  
Perryman, H. T., Ridgeway. July 7; unsuccessful.  
Plackett, J. S., Osage City. July 9; unsuccessful.  
Rice, H., Quenemo. July 12; successful. Saved corn 200 bushels.  
Seleg, H., Olivet. July 22; successful. Saved millet 20 acres.  
Shadel, R. M., Arvonia. July 8; unsuccessful.  
Spicer, H., Osage City. July 15; successful.  
Starr, O., Melvern. July 23; successful. Saved corn 36 acres.  
Stevens, A. J. W., Melvern. July 4; doubtful.  
Tompkins, C. V., Melvern. June 21; successful.  
Van Derlip, W., Carbondale. July 13; successful. Saved corn 150 bushels.  
Williams, W. T., Osage City. June 16; unsuccessful.  
Winelett, W. J., Quenemo. July 15; successful.

**Osborne County.**—Successful, 11; unsuccessful, 4; no trial, 2.

Aydelotte, J. C., Osborne. July 21; unsuccessful.  
Bradshaw, M. V. B., Stuyvesant. July 14; unsuccessful.  
Case, N. T., Stuyvesant. July 14; successful. Saved corn 350 bushels, and some broom-corn.  
Cochran, W. F., Osborne. July 11; successful.  
Coons, Henry, Alton. July 11; unsuccessful.  
Dickason, M. J., Osborne. July 7; successful.  
Driskell, H. C., Pleasant Plain. August 2; successful.  
Harris, W. C., Mount Ayr. August 1; successful.  
Maye, J. S., Alton. July 26; successful.  
Miller, H. C., Portis. July 21; no trial.  
McDowell, J. H., Portis. July 23; successful.  
McDowell, J. W., Portis. July 25; successful.  
Peters, S. R., Downs. July 5; no trial.  
Shirwood, M. P., Osborne. July 11; successful. Saved corn 300 bushels, Kaffir corn 50 bushels.  
Short, W. G., Twin Creek. July 22; unsuccessful.  
Turner, H. A., Portis. June 27; successful.  
Weber, J. L., Osborne. July 18; successful.

**Ottawa County.**—Successful, 6; unsuccessful, 5; no trial, 2.

Akerman, W., Widerange. July 14; unsuccessful.  
Caldwell, A. W., Culver. July 11; no trial.  
Clark, F., Ada. July 12; successful.  
Haley, A., Minneapolis. July 14; unsuccessful.  
Hart, J. C., Minneapolis. July 13; unsuccessful.  
Kearney, T., Minneapolis. — successful. Saved corn about 30 acres.  
Laurence, A., Ada. July 23; successful. Saved some corn.  
Markley, I., Minneapolis. July 15; successful. Saved corn about 60 acres.  
McLaren, J. W., Summerville. July 14; unsuccessful.  
Scheffer, J. K., Minneapolis. June 23; unsuccessful.

Schlotz, L. E., Minneapolis. July 13; successful. Saved some corn.  
Spencer, C. C., Lamar. July 18; no trial.  
Todd, A. D., Poe. July 26; successful.

**Pawnee County.**—Successful, 2; no trial, 1.

Fleming, J. G., Garfield. July 22; no trial.  
Goddard, G. C., Larned. July 11; successful. Saved some corn.  
Saylor, E. B., Point View. June 29; successful. Saved corn 150 bushels.

**Phillips County.**—Successful, 4; doubtful, 1; no trial, 3.

Andrews, J., Marvin. August 1; no trial.  
Brown, W. H., Agra. July 12; successful.  
Clark, H. M., Dana. July 23; successful. Saved corn 400 bushels.  
Mousley, Clara, Goode. July 30; successful. Saved corn, cane, and broom-corn.  
Rose, Wm., Agra. July 29; doubtful.  
Sims, H. F., Phillipsburg. August 1; no trial.  
Stroup, E. S., Bow Creek. July 25; successful. Saved corn 200 bushels.  
Wright, D. G., Marvin. July 14; no trial.

**Pottawatomie County.**—Successful, 19; unsuccessful, 8; no trial, 4; doubtful, 2.

Conlan, Peter, Holy Cross. July 28; unsuccessful.  
Cunningham, B. C., Fostoria. July 9; no trial.  
Curl, J., Olsburg. July 12; successful. Saved corn 200 bushels, and millet to the value of \$40.  
Currie, J. C., Olsburg. June 28; unsuccessful.  
Dronberger, H. P., Louisville. July 4; successful. Saved corn 200 bushels.  
Emmons, C. W., St. George. July 14; no trial.  
Evans, B. B., St. Clere. July 9; successful.  
Ferguson, G., Broderick. July 23; successful. Saved corn 500 bushels.  
Frowe, E. T., Louisville. July 13; unsuccessful.  
Gard, H. L., Westmoreland. July 13; no trial.  
Goddard, R. D., Arispie. July 13; successful. Saved corn about 200 bushels, and some millet.  
Hibbe, J. G., Fostoria. July 12; unsuccessful.  
Holaday, B. F., Blaine. August 11; successful.  
Johnson, J. W., Mariadahl. August 10; unsuccessful.  
Lincoln, Bessie H., Garrison. July 21; unsuccessful.  
Mack, G. B., Arispie. July 12; successful. Saved corn 75 bushels and millet 10 bushels.  
Mansfield, J., Wamego. July 11; successful.  
Moriarty, W. J., Louisville. July 5, unsuccessful.  
Morris, G. R., Louisville. July 26; successful. Saved corn to value of at least \$50.  
McClure, R. H., St. George. July 25; successful. Saved corn 600 bushels.  
Nagle, J. F., Belvue. July 19; successful. Saved corn 200 bushels.  
Pinet, F. B., Onaga. July 22; successful. Saved "ton of my milo corn."  
Reed, C. J., St. Clere. July 29; unsuccessful.  
Stockwell, S. H., Havensville. July 16; doubtful.  
Sumner, W. H., St. Clere. July 22; no trial.  
Watson, E. W., Wamego. July 6; doubtful.  
Welen, J., Olsburg. July 15; successful. Saved corn about 50 bushels.  
Wheat, W. D., Broderick. July 6; successful. Saved some corn and millet.  
Willard, J. F., Wamego. July 18; successful. Saved some corn, and millet 2 acres.

Wilson, J. H., Broderick. July 16; successful. Saved corn about 40 acres and oats 9 acres.

Woodcock, L., Olsburg. June 28; successful. Saved corn 500 bushels.

Worthing, E. A., Belvue. July 13; successful. Saved some corn.

Youngman, J. F., Moodyville. July 8; successful. Saved corn 100 bushels.

**Pratt County.**—Successful, 6; unsuccessful, 1; doubtful, 1; no trial, 4.

Alford, F. G., Pratt. July 11; no trial.

Ashcraft, A. P., Sawyer. July 19; successful.

Blake, S., Pratt. July 23; no trial.

Darby, A. H., Iuka. June 2; successful. Saved wheat 25 bushels.

Davis, W. A., Cullison. July 22; doubtful.

Dresler, H. U., Preston. August 22; successful.

Ellis, A. W., Pratt. May 24; successful.

Fay, A. S., Pratt. May 24; successful. Saved oats adjoining crop.

Fox, C. C., Coats. July 13; no trial.

Jones, Martha J., Preston. July 27; successful.

Sigernon, J., Preston. July 14; no trial.

Stokes, B. F., Preston. July 23; unsuccessful.

**Reno County.**—Successful, 26; unsuccessful, 5; doubtful, 1; no trial, 4.

Anderson, W. J., Sylvia. July 17; successful.

Baker, C. H., Arlington. July 7; successful. Saved some corn.

Beauchamp, J. W., Plevna. July 25; no trial.

Blucher, E., Plevna. July 23; successful.

Bookless, J. S., Nickerson. June 8; doubtful.

Brehm, J., Hutchinson. July 11; successful. Saved corn about 10 acres.

Brown, T., Lerado. July 5; successful. Saved some corn.

Caldwell, S., Arlington. July 6; successful. Saved some corn and broom-corn.

Calverley, R., Partridge. July 15; successful. Saved some corn.

Christophel, J., Partridge. July 19; no trial.

Clark, W. S., Arlington. July 7; successful.

Crenshaw, A. C., Langdon. July 2; successful. Saved some corn and oats.

Curtis, G. C., Haven. July 9; successful.

Davidson, S. C., Plevna. June 27; successful. Saved some corn.

Desbonillons, A., Plevna. July 14; successful.

Dix, J. W., Lerado. June 23; unsuccessful.

Duvall, H. J., Abbyville. July 20; successful. Saved some corn, and later wheat crop.

Eastman, Louisa A., Hutchinson. July 2; unsuccessful.

Hazen, D. W., Sylvia. July 13; unsuccessful.

Hoth, W., Nickerson. June 13; successful. Saved corn 150 bushels.

Hyde, J., Purity. June 29; successful. Saved some corn.

Lacy, E., Hutchinson. July 5; successful. Saved corn 100 bushels.

Layman, J. M., Sego. July 8; successful. Saved some corn.

Leeburg, J., Hutchinson. July 21; successful. Saved corn 500 bushels.

Markle, M. J., Sylvia. July 18; successful.

Morton, J. S., Pretty Prairie. June 27; successful. Saved corn about 30 acres.

Mcatee, N., Langdon. July 15; successful.

McPheeters, C. W., Sego. July 11; successful.

McMullen, H. B., Buhler. July 7; successful.

Nickolls, W., Hutchinson. June 27; successful.

Pendleton, C. H., Pretty Prairie. July 29; no trial.  
Sinclair, W. S., Castleton. July 20; unsuccessful.  
Slocum, C. P., Lerado. July 11; unsuccessful.  
Smith, J., Haven. July 14; no trial.  
Teemly, L. P., Hutchinson. July 16; successful. Saved corn from 200 to 500 bushels.  
Tissue, C. M., Partridge. June 28; successful.

**Republic County.**—Successful, 17; unsuccessful, 6; doubtful, 5; no trial, 2.

Abrahamson, J., Scandia. August 5; no trial.  
Alexander, Q., Belleville. July 18; doubtful.  
Bassett, C. B., Talmo. July 18; successful.  
Boal, A., Agenda. July 25; successful.  
Brandbery, O., Wayne. June 18; unsuccessful.  
Bullen, W. H., Belleville. July 15; doubtful.  
Caldwell, L. W., Courtland. June 10; successful. Saved corn for neighbor, "probably 3,000 bushels."  
Druce, J., Marks. July 18; successful.  
Durand, T. J., Wayne. July 18; successful.  
Gamble, A. P., Wayne. June 27; unsuccessful.  
Hamilton, W. T., Kackley. July 16; successful.  
Householder, I. G., Scandia. August 2; doubtful.  
Johnson, L., Belleville. July 16; successful.  
Johnson, L. M., Kackley. July 2; unsuccessful.  
Kesl, V., Cuba. July 11; successful.  
Lindquist, J., Belleville. July 11; doubtful.  
Monson, M., Kackley. June 8; unsuccessful.  
Morey, O. R., Munden. July 14; unsuccessful.  
Morris, L. M., Scandia. July 27; successful.  
Nelson, J., Wayne. July 14; successful. Saved some corn.  
Passmore, H., Talmo. July 12; successful. Saved corn 400 bushels, oats 600 bushels.  
Raymond, H., Courtland. July 14; successful.  
Rickel, J., Republic. June 8; no trial.  
Rogers, C., Cuba. July 18; unsuccessful.  
Rolf, J., Courtland. July 19; successful.  
Shackelford, W. N., Courtland. June 8; doubtful.  
Vallan, J., Scandia. July 19; successful. Saved some corn.  
Van Aken, J., Belleville. July 18; successful. Saved corn from 300 to 500 bushels.  
Wray, C. W., Belleville. July 16; successful.

**Rice County.**—Successful, 10; unsuccessful, 4; doubtful, 3; no trial, 4.

Barker, B. S., Soxman. July 18; successful.  
Bland, J. E., Little River. July 19; no trial.  
Branch, A. C., Sterling. July 12; successful. Saved some corn and sorghum.  
Clark, H. B., Geneseo. July 25; no trial.  
Clement, J. P., Sterling. May 25; unsuccessful.  
Denton, A. A., Sterling. July 26; no trial.  
Doan, W. S., Geneseo. July 19; successful.  
Forney, F. S., Mitchell. July 25; successful.  
Harts, E. N., Allegan. July 13; unsuccessful.  
Howard, W. A., Little River. July 11; unsuccessful.

Hysell, H., Geneseo. July 19; successful. Saved corn about 3 acres.  
Mann, C. H., Little River. July 16; doubtful.  
Miles, L. J., Little River. July 18; successful.  
Pollock, W., Wherry. July 12; doubtful.  
Richardson, M. J., Little River. June 27; successful.  
Sands, E., Crawford. July 4; successful.  
Shields, J., Crawford. July 14; successful.  
Smith, S. N., Lyons. July 25; no trial.  
Stork, G. W., Sterling. July 19; doubtful.  
Truesdale, F. W., Lyons. July 14; successful.  
Warren, J. H., Sterling. July 14; successful. Saved corn 500 bushels and some broom-corn.

**Riley County.**—Successful, 24; unsuccessful, 11; doubtful, 3; no trial, 4.

Ames, B. J., Riley. June 27; unsuccessful.  
Baxter, A. G., Bala. July 11; successful. Saved corn about 300 bushels.  
Blockosky, F. E., Manhattan. July 12; doubtful.  
Bohnenblust, R., Leonardville. June 17; successful. Saved corn 500 bushels.  
Bohnenblust & Bros., Riley. June 16; successful. Saved some corn and wheat.  
Bohgren, O., Bala. July 4; unsuccessful.  
Brethom, W., May Day. July 8; successful.  
Chamberlain, P. J., Riley. July 7; successful. Saved corn 200 bushels.  
Coltharp, J., Leonardville. July 8; successful.  
Criswell, J. H., Manhattan. July 8; unsuccessful.  
Davies, E. J., Riley. June 8; no trial.  
Douglas, M. L., Manhattan. July 8; successful.  
Evans, E., Bala. June 8; unsuccessful.  
Fisher, J., Manhattan. July 11; successful. Saved corn 400 bushels and oats 300 bushels.  
Griffin, C. L., Riley. June 13; successful.  
George, H., Manhattan. July 11; no trial.  
Hall, J. W., Riley. July 11; unsuccessful.  
Herdner, P., Leonardville. July 1; successful.  
Howe, C. M., Keats. June 10; unsuccessful.  
Houston, J. S., Manhattan. July 2; successful. Saved corn about 100 bushels.  
Jhanke, H., Leonardville. July 1; successful.  
Johnson, W., Cleburne. July 8; successful.  
Jones, D. R., Bala. July 18; doubtful.  
Keeler, J., Bala. June 13; successful. Saved some wheat.  
Kile, J., Manhattan. June 20; successful. Saved millet about 10 tons.  
Kleiner, C., Riley. July 8; unsuccessful.  
Lee, Mary E., Riley. July 7; successful.  
Littlechild, W. T., Stockdale. June 9; no trial.  
McFadden, H., Walsburg. July 12; successful. Saved some corn.  
Nelson, F. V., Keats. July 23; successful. Saved corn about 50 bushels.  
Norris, G. R., May Day. July 20; no trial.  
Palmer, F. L., Riley. July 18; unsuccessful.  
Peterson, P. N., Riley. —— unsuccessful.  
Powers, A. H., Manhattan. July 8; doubtful.  
Richards, J., Manhattan. July 14; successful. Saved corn about 400 bushels, millet 4 acres.  
Rose, W. L., May Day. July 7; successful. Saved corn 100 bushels, millet 25 tons.

Schoonhover, K. O., Walsburg. July 16; successful. Saved corn 200 bushels.  
Senn, E. B., Lasita. July 7; unsuccessful.  
Shumway, J. M., Manhattan. July 11; successful. Saved some corn.  
Stadel, P., Riley. July 18; unsuccessful.  
Weichselbaum, T., Ogden. July 15; successful.  
Williams, J. R., Bala. August 8; successful.

**Rooks County.**—Successful, 1; no trial, 3.

Burroughs, J. V., Zurich. July 22; no trial.  
Dunlap, P. C., Woodston. July 9; successful. Saved corn about 1,800 bushels.  
Hoskins, Cynthia, Codell. August 8; no trial.  
Ziegler, F. G., Zurich. July 13; no trial.

**Rush County.**—Successful, 2; unsuccessful, 1.

Christian, J. A., Ryan. July 20; successful. Saved sorghum 10 acres.  
Runner, J., Rush Centre. July 16; successful. Saved corn "perhaps 50 bushels."  
Wilson, W., La Crosse. June 13; unsuccessful.

**Russell County.**—Successful, 3; unsuccessful, 2; no trial, 1.

Brebner, R., Hawley. July 28; unsuccessful.  
Pharo, J. W., Bunker Hill. July 12; successful. Saved some corn.  
Smith, J. C., Dorrance. June 22; unsuccessful.  
Smith, C. July 11; successful. Saved some corn for himself and 500 bushels for a neighbor.  
Steinle, P., Luray. July 21; successful. Saved corn 200 to 300 bushels.  
Strole, S., Dorrance. July 1; no trial.

**Saline County.**—Successful, 5; unsuccessful, 3; doubtful, 1; no trial, 1.

Bell, J. W., Salina. July 12; successful. Saved some corn.  
Fowler, J., Brookville. July 16; unsuccessful.  
Gillum, C., Chico. July 11; unsuccessful.  
Martin, A. E., Assaria. July 16; no trial.  
McCullick, J., Salina. July 18; successful. Saved some corn.  
Pealer, B. F., Salina. July 11; successful. Saved corn about 12 acres.  
Shier, E. P., Kipp. August 22; doubtful.  
Spencer, F. W., Falun. July 15; partially successful.  
Tate, Chas., Brookville. July 16; successful.  
Whitney, C. F., Salina. July 21; unsuccessful.

**Sedgewick County.**—Successful, 23; unsuccessful, 6; doubtful, 2; no trial, 4.

Alexander, C., Wichita. July 22; no trial.  
Bennett, A. J., Anness. July 18; successful. Saved corn  $32\frac{1}{2}$  acres.  
Bertholf, W. H., Greenwich. July 1; unsuccessful.  
Borg, C. M., Greenwich. July 7; unsuccessful.  
Buck, L. D., Valley Centre. July 20; successful.  
Collett, H. S., Clearwater. July 18; successful. Saved some corn.  
Cooley, E. H., Wichita. August 18; successful.  
Corr, Jos., Clearwater. July 4; successful.  
Davis, C. G., Peotone. July 28; no trial.  
Davis, J., Furley. July 19; successful. Saved some corn.  
Donnell, D. S., Bayneville. July 23; no trial.

Elliot, P. O., Clearwater. July 12; successful. Saved corn 75 bushels, "Turkey" wheat 100 bushels.  
Fees, C. C., Wichita. July 6; unsuccessful.  
Golden, M., Bayneville. July 9; successful.  
Greaser, G., Greenwich. July 1; successful. Saved some corn.  
Hamilton, P. F., Furley. July 7; successful. Saved corn "possibly 50 bushels."  
Hoagh, F., Derby. July 5; unsuccessful.  
Hughes, J., Iowaville. July 12; successful.  
Kalar, L. L., Mt. Hope. May 25; unsuccessful.  
Kohl, M. S., Furley. June 27; successful. Saved corn 600 bushels, oats 400 bushels.  
Martin, O. J., Wichita. July 14; successful.  
Martin, T., Colwich. July 15; successful. Saved corn 200 bushels.  
Mills, S. C., Wichita. July 4; successful.  
McDowell, W. L., Colwich. July 19; successful.  
Neal, J. W., Wichita. July 6; successful. Saved some corn.  
Parker, J. W., Clearwater. July 4; doubtful.  
Peterson, D., Wichita. August 8; unsuccessful.  
Robinson, M., Peotone. June 14; successful. Saved corn about 75 bushels.  
Sawyer, W. S., Clearwater. May 25; successful. Saved millet 10 acres.  
Schwartz, J. E., Derby. July 15; successful. Saved some corn.  
Solter, Wm., Greenwich. July 6; no trial.  
Thomson, J., Cheney. August 29; successful.  
Watt, J., Valley Centre. June 2; doubtful.  
Williamson, W., Greenwich. July 4; successful.  
Wilson, L. A., Furley. July 14; successful. Saved corn 5,000 bushels.

**Shawnee County.**—Successful, 19; unsuccessful, 8; doubtful, 4; no trial, 6.

Becker, O. G., Grand Haven. July 18; successful.  
Bond, W., Rossville. July 16; no trial.  
Breque, H., Wakarusa. July 19; successful.  
Butner, R. S., Grand Haven. June 29; successful. Saved some millet and corn.  
Caldwell, A. H., Auburn. July 27; successful.  
Casner, G. W., Dover. July 2; no trial.  
Cellers, J. E., Tecumseh. July 20; successful.  
Christian, G., Wanamaker. July 26; successful. Saved some corn.  
Corbett, E. M., Topeka. July 4; successful. Saved some millet.  
Cowee, J. Q., Grand Haven. July 8; successful.  
Higginbothan, B. W., Rossville. August 3; successful.  
Holloway, M. L., Topeka. July 21; unsuccessful.  
Howbert, G. P., Watson. July 21; successful.  
Jones, H. F., North Topeka. July 28; no trial.  
Kingman, L., Topeka. July 22; doubtful.  
Laughlin, H. C., Tevis. July 23; unsuccessful.  
Marburg, A., Dover. July 2; unsuccessful.  
Maus, J. E., Vidette. July 6; successful.  
Miller, B., Topeka. July 20; successful. Saved corn about 300 bushels.  
McCool, B. H., Dover. July 6; no trial.  
McGowen, J. L., Waveland. July 26; unsuccessful.  
McRoberts, J., Silver Lake. July 11; successful. Saved some corn.  
O'Neill, F. C., Richland. July 20; no trial.  
Popeno, W. P., Berryton. July 5; unsuccessful.  
Read, A. G., Watson. July 22; unsuccessful.

Reeder, W., Topeka. July 15; no trial.  
Riley, R. D., Willard. August 18; unsuccessful.  
Riley, H., Dover. July 13; successful. Saved corn 100 bushels.  
Spreng, P. J., Topeka. July 25; doubtful.  
Strohm, J. L., Auburn. July 11; successful. Saved corn 300 bushels, millet 15 tons.  
Tomson, A. L., Elmont. June 28; doubtful.  
Vedder, A. H., Pauline. July 12; successful. Saved some corn and oats.  
Vorhies, C. W., Rossville. June 28; successful. Saved some corn.  
Whitaker, F. S., Willard. July 9; successful. Saved some corn.  
Williams, D. A., Silver Lake. July 11; doubtful.  
Wright, E. S., Dover. July 21; successful.  
Zirkle, S., Tevis. July 6; unsuccessful.

**Smith County.**—Successful, 29; unsuccessful, 8; doubtful, 3; no trial, 3.

Barnes, Mrs. L. A., Lebanon. July 9; unsuccessful.  
Bonecutter, J. H., Lebanon. July 12; unsuccessful.  
Brown, J. M., Judson. July 20; successful.  
Buchanan, M., Lebanon. July 18; successful.  
Bunker, J. C., Lebanon. July 19; successful. Saved corn 7 acres.  
Carper, N. V., Sherwood. July 15; unsuccessful.  
Chase, W. R., Dispatch. July 18; successful.  
Clark, T. J., Lebanon. August 1; unsuccessful.  
Cline, J. H., Ohio. July 20; unsuccessful.  
Dilsaner, E., Kensington. July 21; successful. Saved corn 300 bushels.  
Dimond, I., Kensington. July 12; successful.  
Ducker, G., Sherwood. July 20; successful. Saved corn 1,500 bushels.  
Elwood, J., Bellaire. July 21; no trial.  
Gledhill, J., Twelve Mile. July 25; doubtful.  
Graves, H., Lebanon. July 18; unsuccessful.  
Grice, S. R., Cora. July 12; successful.  
Griswold, R. T., Smith Centre. July 19; unsuccessful.  
Hagler, P. J., Lebanon. July 12; successful. Saved some corn.  
Hartsook, M. H., Jacksonburg. June 29; successful. Saved some corn.  
Hawkins, A. W., Lebanon. July 19; successful.  
Heschele, D., Lebanon. July 15; successful.  
Hiler, L., P., Smith Centre. June 9; successful.  
Hodson, V. L., Gaylord. July 14; successful. Saved broom-corn 3 tons, oats 200 bushels.  
Hughes, J., Custer. July 12; successful. Saved corn 100 bushels.  
Isom, A. M., Lebanon. July 15; successful.  
Jones, Ora, Troublesome. July 12; successful. Saved corn 300 bushels.  
Lange, F. W., Tyner. July 12; unsuccessful.  
Manchester, R. R., Bellaire. July 18; successful. Saved corn 700 bushels.  
McAnulty, S. A., Smith Centre. June 27; successful.  
Nelson, D. M., Reamsville. July 20; successful. Saved corn 1,600 bushels.  
Northrup, L. P., Womer. July 21; successful.  
O'Neill, H. C., Bellaire. July 4; successful. Saved wheat 400 bushels, corn 900 bushels.  
Post, T. A., Smith Centre. June 22; successful.  
Rice, Wm., Kensington. July 18; successful. Saved some millet.  
Schellinger, T. O., Lebanon. July 11; successful.  
Simpson, C. H., Tyner. July 21; doubtful.

Smith, I. B., Smith Centre. July 27; no trial.  
 Smith, N., Lebanon. July 12; successful.  
 Staley, R. W., Cora. July 25; successful.  
 Stones, M. J., Lebanon. July 9; doubtful.  
 Waggoner, N. J., Lebanon. July 12; successful. Saved corn 600 bushels, and some oats.  
 Wills, H., Smith Centre. July 25; no trial.  
 York, C. B., Lebanon. July 15; successful.

**Stafford County.**—Successful, 11; unsuccessful, 1; doubtful, 1; no trial, 1.

Bear, N. S., Neola. July 12; successful.  
 Ball, R. R., Stafford. August 28; successful.  
 Cook, J. E., Stafford. July 7; successful.  
 Feldhut, C., Bedford. July 12; successful. Saved some corn and millet.  
 Higgins, A., Stafford. July 11; successful. "Saved my corn."  
 Horn, J. W., Stafford. June 30; successful. Saved corn 1,200 bushels.  
 Lowrey, J. A., Stafford. July 11; unsuccessful.  
 Morford, J. F., Stafford. July 12; successful. Saved 10 acres of millet.  
 Morris, W. R., St. John. July 22; no trial.  
 Rasmussen, N. J., Neola. July 12; successful.  
 Ring, C., St. John. August 3; doubtful.  
 Rixon, R. H., St. John. July 12; successful.  
 Rose, A. B., St. John. July 20; successful.  
 Wilcox, W. R., St. John. July 14; successful. Saved some corn.

**Sumner County.**—Successful, 15; unsuccessful, 8; doubtful, 2; no trial, 6.

Allen, J. E., Mayfield. July 11; successful. Saved some corn.  
 Botkin, A., Cicero. July 4; unsuccessful.  
 Bullock, J. H., Millerton. May 25; successful. Saved some corn.  
 Cart, G. M., Wellington. May 24; successful. Saved some corn.  
 Carter, J. W., Mayfield. July 8; successful. Saved corn 450 bushels, millet 7 acres.  
 Davis, J. S., Mayfield. June 29; successful.  
 Green, T. L., Milton. August 1; unsuccessful.  
 Heriff, J. H., Milan. July 5; successful. Saved corn 500 bushels.  
 Hollenbeck, P., Guelph. July 25; no trial.  
 Johnson, J. M., Ewell. August 25; successful.  
 Ketcher, G. W., Millerton. July 4; successful.  
 Laurie, M., Millerton. July 11; successful.  
 Leach, A. C., Conway Springs. July 1; successful.  
 Leatherman, J. R., Conway Springs. August 6; no trial.  
 Lockhart, W. J., Ewell. July 8; unsuccessful.  
 Menser Bros., Anson. July 12; unsuccessful.  
 McAllister, C. B., Belle Plaine. July 19; successful. Saved corn 20 acres.  
 McCuddy, I. N., Mayfield. August 24; no trial.  
 Taylor, J. E., Argonia. July 4; successful. Saved some corn.  
 Reinhart, F., Milan. July 15; unsuccessful.  
 Roberts, W. H., Zyba. July 5; successful. Saved some corn and millet.  
 Rogers, F. M., Ewell. July 18; unsuccessful.  
 Russell, A. D., Mulvane. July 1; unsuccessful.  
 Sanders, F. L., Mayfield. July 2; successful. Saved some corn.  
 Shinn, M. J., Millerton. July 11; no trial.  
 Snider, B., Anson. July 4; successful.

Snider, L., Drury. July 13; successful. Saved corn 1,120 bushels.  
Snyder, J., Perth. July 5; doubtful.  
Vincent, S. R., Argonia. August 20; no trial.  
Whealy, W. G., Wellington. July 9; doubtful.  
White, H. N., Portland. July 13; successful. Saved corn 100 bushels, wheat 100 bushels, oats 50 bushels.  
Williams, H. M., Portland. July 12; no trial.

**Wabaunsee County.**—Successful, 32; unsuccessful, 9; doubtful, 7; no trial, 4.

Andres, C., Alta Vista. July 2; doubtful.  
Barnes, W., Paxico. July 5; doubtful.  
Bell, J. A., Alta Vista. June 28; successful.  
Beutel, A., Alma. July 9; successful.  
Berroth, G., Alma. July 21; no trial.  
Best, J., Maple Hill. July 8; doubtful.  
Boiles, J. S., Alta Vista. June 24; unsuccessful.  
Bollier, F. H., McFarland. July 9; successful. Saved some corn.  
Campbell, J. P., Maple Hill. July 12; successful.  
Clothier, H. H., Vera. August 9; no trial.  
Comstock, G. J., McFarland. July 21; no trial.  
Cornell, G. G., Alma. July 7; successful.  
Cottrell, A. A., Wabaunsee. July 13; successful. Saved corn 18 acres.  
Craig, N., Wilmington. July 7; successful. Saved corn  $7\frac{1}{2}$  acres.  
Crane, W. R., Maple Hill. July 5; unsuccessful.  
Crouch, W. S., Maple Hill. August 1; doubtful.  
Dann, L. C., Harveyville. June 24; successful. Saved corn 500 bushels.  
Darrah, T., Keene. August 10; doubtful.  
Dean, F. A., Alta Vista. July 9; unsuccessful.  
Dierking, F., Chalk Mound. July 11; successful. Saved corn 500 bushels.  
Enlow Bros., Pavilion. July 21; successful.  
Ewing, B. L., Alma. July 1; successful. Saved corn 75 bushels.  
Hamar, C. A., Harveyville. June 28; unsuccessful.  
Haslett, R. A., Eskridge. July 5; successful.  
Haywood, J. H., Harveyville. June 27; successful. Saved corn 100 bushels.  
Hawthorne, J., Chalk Mound. July 20; successful.  
Johnson, J. M., Harveyville. July 7; unsuccessful.  
Krietzman, C., Templin. July 25; unsuccessful.  
Kilian, E. A., Alma. July 14; doubtful.  
Kriegenherdt, H., Alma. July 21; successful.  
Morrett, J. A., Alta Vista. July 9; successful. Saved corn 200 bushels.  
Morrison, W. H., Alma. July 25; successful.  
McCoy, J., Eskridge. July 15; unsuccessful.  
McCullough, J. T., Alta Vista. June 28; successful.  
McCutcheon, P., Chalk Mound. July 13; successful.  
Neiswender, W., Chalk Mound. July 13; successful.  
Parcks, J. C., Eskridge. July 2; unsuccessful.  
Patterson, R., Eskridge. July 12; successful. Saved corn 1,125 bushels.  
Peterson, C., Chalk Mound. July 15; successful.  
Reber, F. H., Volland. July 18; successful.  
Rinehart, W. M., Eskridge. July 16; successful. Saved corn 200 bushels.  
Schuck, F. E., Harveyville. July 8; doubtful.  
Skeen, J. A., Eskridge. July 13; successful. Saved corn 600 bushels.

Southwick, L. V., Keene. July 13; successful.  
Sparling, A. C., Eskridge. July 9; successful.  
Spears, W. T., Volland. July 18; unsuccessful.  
Stiles, A. H., Pavilion. July 9; successful. Saved corn 1,050 bushels.  
Strassle, A., Paxico. July 14; successful.  
Stratton, R. C., Pavilion. July 25; no trial.  
Willey, G. W., Alma. July 22; successful.  
Young, J. C., Harveyville. July 27; successful.  
Ziegler, F., Chalk Mound. July 11; successful. Saved corn 100 bushels.

**Washington County.**—Successful, 14; unsuccessful, 11; no trial, 6.

Alexa, J., Hanover. July 18; unsuccessful.  
Auld, L. R., Albia. August 1; no trial.  
Beckermeyer, H., Linn. June 29; successful.  
Bennett, K. S., Linn. June 29; unsuccessful.  
Bower, A. S., Albia. July 15; successful. Saved corn 30 bushels.  
Cammel, J. C., Ballard's Falls. July 22; successful. Saved corn 250 bushels.  
Dikeman, F. R., Barnes. July 27; no trial.  
Edington, S., Washington. July 14; successful.  
Felt, E. K., Barnes. July 22; successful. Saved corn 40 acres.  
Hatch, H. M., Mahaska. July 27; unsuccessful.  
Hay, T. J., Palmer. July 16; successful. Saved some corn.  
Hills, W. P., Weltbote. July 23; unsuccessful.  
Hyland, H., Brantford. June 16; unsuccessful.  
Jacobs, W., Washington. July 15; successful. Saved corn 500 bushels, wheat 300 bushels, oats 500 bushels.  
Kutsch, J., Washington. July 27; unsuccessful.  
Liston, W. W., Washington. July 28; successful. Saved corn 30 acres, and 100 acres of fall wheat.  
Lohmeyer, A., Linn. July 13; unsuccessful.  
Lowe, D. E., Day. August 29; successful. Saved broom-corn 30 acres.  
Miller, W., Brantford. July 14; successful. Saved some corn.  
Murdock, J. A., Clifton. July 8; no trial.  
Oberhelman, E., Parallel. July 12; successful.  
Osterhout, M. D., Gaskill. August 5; unsuccessful.  
Pugh, E. N., Haddam. July 15; successful. Saved some corn.  
Rowell, L., Emmons. July 27; no trial.  
Schwerdfeger, C. F., Linn. July 21; unsuccessful.  
Serles, I. P., Palmer. July 18; successful. Saved corn 20 acres.  
Stephens, C. B., Tansel. July 19; successful. Saved some corn.  
Stewart, J. L., Linn. July 13; unsuccessful.  
Van Petten, J. T., Linn. July 12; unsuccessful.  
Wallace, J. M., Linn. July 28; no trial.  
Williams, G. T., Mahaska. July 26; no trial.

**Wilson County.**—Successful, 9; unsuccessful, 8; doubtful, 2; no trial, 1.

Canty, S., Buffalo. July 18; successful.  
Graham, R., Altoona. July 25; doubtful.  
Grass, A., Fredonia. July 16; successful. Saved corn 30 acres.  
Hall, I. C., La Fontaine. July 14; doubtful.  
Hamilton, L. A., Fredonia. May 30; unsuccessful.  
Hite, W. H., Altoona. July 14; successful.

Hudson, W. L., La Fontaine. June 24; unsuccessful.  
Johnston, H. N., Altoona. July 16; unsuccessful.  
Kepler, U. A., Vilas. May 31; unsuccessful.  
Lamb, J. N., Coyville. June 17; unsuccessful.  
Loofbourrow, Sarah, Fredonia. July 2; successful. Saved corn "several hundred bushels."  
Mariner, C. H., Fredonia. June 24; unsuccessful.  
Miller, G. L., Benedict. July 12; successful.  
Neal, F. O., Buffalo. July 13; unsuccessful.  
Preble, A. C., Altoona. July 18; successful. Saved some corn.  
Russell, B. E., La Fontaine. June 2; successful. Saved corn 300 bushels, timothy 20 acres.  
Russell, J. J., La Fontaine. June 1; unsuccessful.  
Schwartz, A. L., Fredonia. July 5; no trial.  
Stevens, O. W., Rest. July 14; successful. Saved some corn.  
Whiteside, W. W., Albany. July 20; successful.

**Woodson County.**—Successful, 8; unsuccessful, 8; doubtful, 2; no trial, 1.

Boyd, J. D., Toronto. June 25; unsuccessful.  
Bradford, H. E., Center Ridge. July 13; successful.  
Bradley, W. L., Myra. July 9; unsuccessful.  
Cope, S. J., Wortley. June 18; unsuccessful.  
Davidson, A., Yates Center. July 23; doubtful.  
Gilson, J. S., Toronto. August 22; successful.  
Haradon, E. W., Yates Center. July 28; unsuccessful.  
Hensley, W. F., Toronto. July 9; successful. Saved some corn.  
Hess, J., Neosho Falls. July 15; successful. Saved some corn.  
Howard, A., Vernon. July 14; unsuccessful.  
Leege, B., Toronto. June 23; unsuccessful.  
Manifold, B., Finney. July 27; no trial.  
Morrow, J. W., Yates Center. July 28; successful. Saved some corn.  
McCormick, J. W. G., Piqua. May 31; unsuccessful.  
Pingrey, W. M., Yates Center. July 7; doubtful.  
Ryan, R. M., Yates Center. July 15; successful. Saved corn about 15 acres.  
Smith, J. J., Wortley. July 13; unsuccessful.  
Williams, J. W., Neosho Falls. July 18; successful. Saved corn 4 acres.  
Wingrove, W. D., Vernon. July 25; successful. Saved some sorghum.

**State of Illinois.**—Successful, 6; unsuccessful, 1; doubtful, 1; no trial, 4.

Baer, Daniel, Summerfield. June 30; doubtful.  
Charless, W. A., Butler. July 20; unsuccessful.  
Fader, Louis, Bible Grove. August 29; no trial.  
Gruenewald, Henry, Shumway. July 28; successful. Saved corn 6 acres and field of wheat.  
Kissick, C. W., New Douglass. July 9; successful.  
Kost, Elias, Herrick. July 15; successful. Saved corn 450 bushels, cane 14 acres.  
Klein, W. H., Johnsonville. August 2; no trial.  
McIntosh, J. C., Rockford. August 18; successful.  
Piepenbrink, J. O., Crete. August 5; no trial.  
Seymour, J. H., Smithborough. July 27; successful. "Saved one-fourth of my corn crop."  
Stephens, C. H., Owaneco. July 6; no trial.  
Suffern, J. C., Suffern. July 26; successful. Saved corn 100 bushels.

**Indian Territory.—Doubtful, 1; no trial, 1.**

Dreves, F. R. Robberson. July 18; doubtful.

Morrison, C. W., Minco. June 24; no trial.

**State of Iowa.—Successful, 1; no trial, 1.**

Ronan, D. D., Waukon. July 11; no trial.

Macha, F. E., North McGregor. July 11; successful.

**State of Minnesota.—Unsuccessful, 1.**

Rickmeyer, A., Fair Haven. August 17; unsuccessful.

**State of Mississippi.—Doubtful, 1; no trial, 1.**

Atterbury, Aldridge, Mimms &amp; Co., Estell. May 21; doubtful.

Weed, H. E., Agricultural College. May 23; no trial.

**State of Missouri.—Successful, 6; no trial, 3.**

Anderson, W., Cyrene. July 28; successful. "Saved about eight-tenths of the crop."

Arms, F. W., Nettleton. August 6; no trial.

Burkholder, F. A., Cyrene. July 30; no trial.

Deardorff, J. R., Bachelor. July 7; successful. Saved some corn.

Righter, H. J., Vandalia. July 15; successful.

Roy, J. W., Naomi. July 16; successful.

Smith, E. E., Hickman Mills. July 1; successful. Saved some corn.

Thomas, M. F., Medoc. July 29; no trial.

Wilkins, R. M., Sprague. August 1; successful.

**State of Nebraska.—Successful, 10; unsuccessful, 4; doubtful, 1; no trial, 2.**

Billings, J. C., Red Cloud. July 28; no trial.

Burns, J. W., Bostwick. July 11; successful.

Bussard, J., Campbell. July 18; no trial.

Cather, C. F., Red Cloud. July 18; successful.

Fish, Chas., Guide Rock. July 9; successful. Saved corn 18 acres.

George, M. E., Hubbell. July 22; successful. Saved corn 100 bushels.

Graham, S. L., Red Cloud. July 14; successful. Saved corn and wheat.

Harrison, J. A., Naponee. July 25; unsuccessful.

Hodkinson, W., Byron. July 18; successful.

Jeschke, W., Rockville. August 9; successful.

Millar, C., Shickley. August 9; unsuccessful.

McPortland, J., Red Cloud. July 14; successful.

Polmicky, Jos., Red Cloud. July 26; successful. Saved some corn.

Stearn, W. H., Cowles. July 28; doubtful.

Stevens, F. W., Ragan. August 4; successful.

Vance, R., Byron. July 18; unsuccessful.

Weigel, J., Guide Rock. July 21; unsuccessful.

**Oklahoma Territory.—Successful, 18; unsuccessful, 4; doubtful, 1; no trial, 5.**

Abercrombie, Mrs. Mabel, Omer. July 11; successful. Saved some corn.

Ambrister, S. A., Norman. May 24; unsuccessful.

Anderson, N. B., Norman. May 24; no trial.

Boston, Geo., Moore. August 30; unsuccessful.

Brown, Geo., Frisco. June 24; successful. Saved corn 75 bushels.

Campbell, W. H., Orlando. July 11; no trial.  
Childers, G. W., Kingfisher. July 11; successful.  
Cohee, Mrs. V. D., Langston. May 24; successful. Saved some corn and wheat.  
Couch, D. S., Miller. July 6; successful. Saved corn 10 acres.  
Davis, L. N., Moore. July 6; unsuccessful.  
Gardiner, F. A., Guthrie. August 25; doubtful.  
Hutchinson, W. H., Thurston. July 18; no trial.  
Ingraham, F., Stillwater. June 27; successful. Saved corn 12½ acres.  
Jackman, W. H., Moore. July 9; successful. Saved some corn and oats.  
Johnson, T. J., Norman. May 20; successful. Saved crop of oats.  
Longwith, J. G., Okarche. August 15; successful.  
Magruder, A. C., Stillwater. July 6; successful. Saved corn 400 bushels.  
McKee, H. L., Downs. July 5; successful. Saved corn 750 bushels.  
Needham, J. N., Oklahoma City. July 4; successful.  
O'Brien, M. F., Frisco. May 24; successful. Saved corn 5 bushels per acre.  
Phelps, E. M., Moore. May 24; unsuccessful.  
Shane, Geo., Moore. July 11; successful. Saved some corn and broom-corn.  
Smalley, J., Guthrie. August 8; successful.  
Smith, Yates, Yates. May 24; no trial.  
Sproat, S. G., Oklahoma City. May 24; no trial.  
Sutton, F. G., El Reno. August 15; successful. Saved crop of fodder sorghum.  
Treaster, Anna, Perkins. July 1; successful.  
Wooten, L. W., Moore. July 15; successful. Saved some corn.

**State of Texas.**—Successful, 9; unsuccessful, 5; doubtful, 2; no trial, 20.

Ainsworth, J. W., Kosse. May 24; no trial.  
Bell, C. M., Tehuacana. May 24; no trial.  
Bowden, R. A. Rice. May 24; no trial.  
Burger, J. C., Rural Shade. May 24; successful.  
Cain, Ed., Stubbs. May 24; successful.  
Carter, J. C., Rice. May 24; no trial.  
Farrer, H. F., Chatfield. May 24; successful.  
French, H. C., Pilot Point. May 24; successful.  
Grover, David & Freeman, Mexia. May 24; no trial.  
Gregory, S. N., Rice. May 24; no trial.  
Hardesty, S. R., Red Oak. May 24; doubtful.  
Johnson, W. G., Reagan. June 20; no trial.  
Johnston, G. E., Eureka. May 24; no trial.  
Jones, C. S., Harvey. May 24; unsuccessful.  
Kelley, C. D., Fitzgerald. May 30; unsuccessful.  
LaRoe, A. A., Will's Point. May 24; unsuccessful.  
May, W. F., Kingsbury. August 6; no trial.  
Morgan, E. D., Peede. May 24; no trial.  
Montfort, P. T., Chatfield. May 24; no trial.  
Moreland, W. A., Moreland. May 24; no trial.  
Muckleroy & Martin, Terrell. May 24; successful.  
McKinnon, J. G., Prairie Grove. June 1; successful.  
Nickells, R. W., Prairie Lea. August 18; unsuccessful.  
Nickens, J. M., Housley. May 24; no trial.  
Peters, W. S., Rural Shade. May 24; successful.  
Pickering, Iva, Hester. May 24; no trial.  
Rand, E. F., Crandall. May 24; no trial.

Sanger Bros., Dallas. May 24; no trial.  
 Smith, W. C., Tulip. July 14; doubtful.  
 Stell, J. W., Cooper. July 12; successful.  
 Stéphenson, W. C., Kosse. May 24; no trial.  
 Waite, Wm., Iowa Park. August 18; unsuccessful.  
 Walls, C. M., Lawndale. May 24; successful.  
 Waring, Wm., Jolly. August 10; no trial.  
 Watkins, W. B. W., Eureka. May 24; no trial.  
 Wilkinson, J. L., Tolosa. May 24; no trial.

**State of Wisconsin.**—Successful, 3; unsuccessful, 1; no trial, 3.

Campbell, G. N., Stoughton. June 20; unsuccessful.  
 Duffin, S. J., Eagle. August 12; no trial.  
 Gardner, Edwin, Shopiere. August 13; successful. Saved corn 15 acres, barley 70 acres.  
 Gates, H. E., Beloit. June 20; successful. Saved corn 25 bushels.  
 Goff, E. S., Madison. June 20; no trial.  
 Jones, G. G., Neenah. July 8; no trial.  
 Norrie, G. A., Genesee. July 12; successful.

**VI.—SUMMARY OF REPORTS OF FIELD EXPERIMENTS IN KANSAS.**

77 KANSAS COUNTIES.	Success- ful.	Unsuc- cessful.	Doubt- ful.	No. trial
Allen . . . . .	14	9	4	3
Anderson . . . . .	18	1	0	3
Atchison . . . . .	2	1	0	0
Barber . . . . .	8	2	1	0
Barton . . . . .	2	1	1	1
Bourbon . . . . .	7	5	1	0
Brown . . . . .	1	0	0	0
Butler . . . . .	30	6	8	5
Chase . . . . .	25	6	3	3
Chautauqua . . . . .	8	3	0	1
Cherokee . . . . .	16	10	2	2
Clay . . . . .	32	17	4	6
Cloud . . . . .	34	5	4	4
Coffey . . . . .	37	2	1	7
Comanche . . . . .	1	0	1	0
Cowley . . . . .	15	4	5	1
Crawford . . . . .	10	11	3	7
Decatur . . . . .	1	0	1	0
Dickinson . . . . .	33	13	1	5
Doniphan . . . . .	0	1	0	1
Douglas . . . . .	16	2	4	5
Edwards . . . . .	2	0	0	0
Elk . . . . .	14	4	2	4
Ellis . . . . .	4	0	0	1
Ellsworth . . . . .	5	2	1	5
Ford . . . . .	0	1	0	2
Franklin . . . . .	14	4	3	1
Geary . . . . .	12	8	2	4

KANSAS COUNTIES—CONCLUDED.	Success- ful.	Unsucces- sful.	Doubt- ful.	No. trial.
Graham.....	1	0	0	0
Greenwood.....	20	11	0	2
Harper.....	15	3	0	1
Harvey.....	12	3	2	2
Hodgeman.....	0	0	0	1
Jackson.....	2	1	2	1
Jefferson.....	13	4	1	3
Jewell.....	44	19	5	4
Johnson.....	3	0	1	1
Kingman.....	2	5	0	0
Kiowa.....	2	0	0	1
Labette.....	20	13	2	5
Leavenworth.....	2	0	2	0
Lincoln.....	8	5	0	2
Linn.....	3	3	0	0
Lyon.....	50	17	6	4
Marion.....	47	7	6	5
Marshall.....	4	2	1	3
Miami.....	3	2	0	1
Mitchell.....	26	3	1	3
Montgomery.....	9	10	0	2
Morris.....	37	13	3	5
McPherson.....	4	5	0	6
Nemaha.....	1	0	0	0
Neosho.....	12	3	2	1
Osage.....	46	8	4	5
Osborne.....	11	4	0	2
Ottawa.....	6	5	0	2
Pawnee.....	2	0	0	1
Phillips.....	4	0	1	3
Pottawatomie.....	19	8	2	4
Pratt.....	6	1	1	4
Reno.....	26	5	1	4
Republic.....	17	6	5	2
Rice.....	10	4	3	4
Riley.....	24	11	3	4
Rooks.....	1	0	0	3
Rush.....	2	1	0	0
Russell.....	3	2	0	1
Saline.....	5	3	1	1
Sedgwick.....	23	6	2	4
Shawnee.....	19	8	4	6
Smith.....	29	8	3	3
Stafford.....	11	1	1	1
Sumner.....	16	8	2	6
Wabaunsee.....	32	9	7	4
Washington.....	14	11	0	6
Wilson.....	9	8	2	1
Woodson.....	8	8	2	1
Totals.....	1,044	372	120	196

Total experiments reported on, 1,732.

Of the experiments in Kansas in 1892, 67.9 per cent. were successful.  
 24.3 per cent. were unsuccessful.  
 7.8 per cent. were doubtful.

### VII.—SUMMARY OF FIELD EXPERIMENTS IN OTHER STATES THAN KANSAS.

	Successful.	Unsuccess- ful.	Doubt- ful.	No. trial.
Illinois	6	1	1	4
Indian Territory	0	0	1	1
Iowa	1	0	0	1
Minnesota	0	1	0	0
Mississippi	0	0	1	1
Missouri	6	0	0	3
Nebraska	10	4	1	2
Oklahoma Territory	18	4	1	5
Texas	9	5	2	20
Wisconsin	3	1	0	3
Total for other States	53	16	7	40

### VIII.—SUMMARY OF ESTIMATES OF CROPS SAVED IN KANSAS.

Of the 1,044 field experimenters in Kansas who report successful results, 383 gave estimates of crops saved to them by reason of the experiments. The sum in cash value of these estimates is \$39,481.15, or an average of \$103.08 for each experimenter. If the average may be fairly applied to the remainder of the 1,044 successful experimenters, an aggregate saving of \$107,615.52 to the Kansas experimenters may be estimated. The reported estimates, arranged by crops, are as follows:

Wheat—2,283 bushels, at 50c.	.....	\$1,141 50
115 acres (estimated saving of 5 bushels per acre) =		
575 bushels, at 50c.	.....	287 50
Corn—112,921 bushels, at 30c. a bushel.	.....	\$33,876 30
2,570½ acres (estimated saving of 5 bushels per acre)		
=12,850 bushels, at 30c. a bushel.	.....	3,855 00
Additional—cash estimate.	.....	180 00
Oats—3,570 bushels, at 25c. a bushel.	.....	\$892 50
289 acres (estimated saving of 10 bushels an acre) =		
2,390 bushels, at 25c. a bushel.	.....	597 50
Broom-Corn—30 acres (estimated saving of \$6 an acre)...	.....	\$180 00
4½ tons, at \$80 a ton.	.....	360 00
Millet—349½ tons, at \$6 a ton...	.....	\$2,097 00
169½ acres (estimated saving of 1 ton an acre) = 169½		
tons, at \$6 a ton.	.....	1,017 00
Millet seed, 170 bushels, at 40c. a bushel.	.....	68 00
Additional—cash estimate.	.....	270 00
		1,355 00

<i>Barley</i> —120 bushels, at 40c. a bushel.....		\$48 00
<i>Cane</i> —23½ acres (estimated saving of 2 tons an acre)=		
47 tons, at \$2 a ton.....	\$94 00	
59 tons, at \$2 a ton.....	118 00	
Additional—cash estimate.....	55 00	267 00
<i>Milo-Maize</i> —1 ton .....		.....
<i>Kaffir Corn</i> —250 bushels, at 40c. a bushel.....	\$100 00	
11 acres (estimated saving of 10 bushels an acre)=		
110 bushels, at 40c. a bushel.....	44 00	144 00
<i>Timothy</i> —37½ acres (estimated saving of one-half ton 'an acre)=18½ tons, at \$7.50 a ton.....	\$140 60	140 60
<i>Sweet-Corn</i> —5 bushels, at 75c. a bushel.....	\$3 75	
One-half acre.....	7 50	11 25
Total saved in Kansas by 383 farmers.....		\$43,336 15
Average saving for each farmer (in Kansas), \$113.14.		

## APPENDIX "A."

EXPENSES OF THE KANSAS UNIVERSITY EXPERIMENTAL STATION  
FROM APRIL 7, 1892, TO DECEMBER 1, 1892.

## Paid for supplies and material in laboratory:

E. R. Learned, two copper funnels.....	\$1 65
W. H. Duncan, hardware.....	4 85
Leis Drug Company, drugs, pill boxes, etc.....	21 25
Poehler Mercantile Company, crockery.....	1 00
B. W. Woodward, drugs, pill boxes, etc.....	11 00
Chemicals from chemical department.....	2 78
	<hr/>
	\$42 53

## Paid for office supplies:

Journal Company, paper, printing, etc.....	\$45 97
Wyckoff, Seamans & Benedict, type-writer supplies.....	6 00
Field & Gibb, ink, pens, paper, books, etc.....	10 04
Telephone Company.....	2 25
Lawrence Book Company, ink, pens, paper, books, etc.....	5 16
Office Specialty Manufacturing Company, office files.....	4 50
W. J. Coleman, printing.....	11 03
	<hr/>
	84 95

## Paid for extra office help:

G. J. Graves.....	\$201 91
Mary Snow.....	5 10
Mary Wellman.....	5 00
	<hr/>
	212 01

## Paid for field agent's salary and for traveling expenses in field:

F. H. Snow.....	\$11 70
W. C. Stevens.....	9 50
E. C. Hickey.....	289 50
	<hr/>
	310 70

## Paid for labor in laboratory:

H. R. Linville.....	\$52 66
E. S. Tucker.....	87 86
W. C. Stevens.....	200 00
	<hr/>
	340 52

Paid for drayage, freight, and express..... 53 85

Paid for postage..... 349 54

Paid Julius Bien &amp; Co., cuts for report..... 20 00

Total..... \$1,414 10

## APPENDIX "B."

## DIRECTIONS FOR OBTAINING AND APPLYING THE CHINCH-BUG INFECTION.

In order to keep up our supply of infected bugs, we must require that each person sending for infection send us live bugs from the field. These should be put into a tin box (a baking powder box is excellent for this purpose), *without soil*, and with a supply of green wheat or corn. The box should have a tight-fitting cover, and no holes need to be made. We have found that the bugs reach us in the best condition when sent in this way.

Upon receipt of infected bugs from the Station, a shallow box about 24x36 x6 inches, with tight joints, should be provided. Sprinkle the whole inside of the box with water and put in enough green wheat or corn to cover the bottom. Scatter the infected bugs over the bottom and put in a large quantity of live bugs from the field; a quart would not be too many for a box of the size above suggested. A smaller box may be used for a smaller quantity of bugs. After the bugs have remained in the box two days, remove half of them, alive and dead, and scatter them over that part of the field where the bugs are thickest; at the same time replenish the infection box with more bugs from the field. Continue to scatter bugs from the infection box over the field at intervals of two days, until it is seen that the bugs are dying rapidly all over the field. Keep the box moist by repeated sprinkling and change the green food as often as it loses its freshness.

Careful attention to these directions will often insure success where careless use of the infection would fail. Make daily notes on the appearance of the bugs in the infection box and in the field, and of the weather while the field infection is in progress. Note carefully the chinch-bug conditions in neighboring fields. Keep a list of farmers who get infected bugs from your farm.

Save a quantity of fungus-covered and non-fungus-covered dead bugs in a tin box for use the following year. Put the infection box away for future use.

Should the first lot of infected bugs from the Station seem to fail in their purpose, send without delay for a new supply.

*Do not fail to send a full report of the experiment to the Director of the Station.*







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